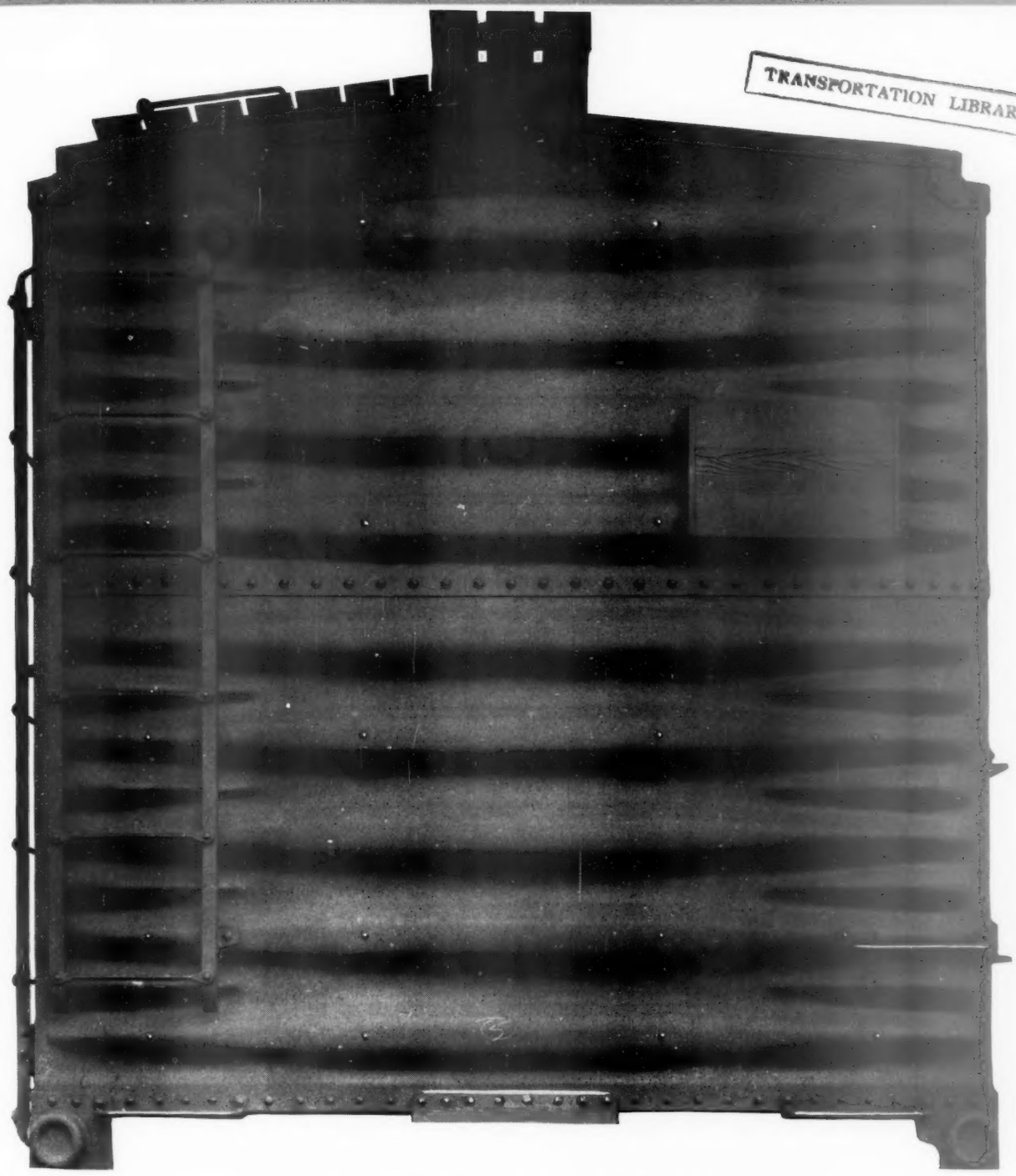
JULY 31, 1937

Railway Age

Founded in 1856



WHEN THE DRAFT GEAR STOPS

THE DREADNAUGHT END STARTS

YIELDING UNDER EXTREME IMPACTS ONE FOOT
AS A CUSHION AGAINST THE SLIDING LOAD

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the Act of March 3, 1879. Subscription price, $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 103, No. 5.

Published every Saturday by the Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa., with editorial and executive offices: 30 Church Street, New York, N. Y., and 105 West Adams Street, Chicago, Ill.

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The Railway Age is a member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulations (A. B. C.).

Subscriptions, including 52 regular weekly issues, and special daily editions published from time to time in New York, or in places other than New York, payable in advance and postage free. United States, U. S. possessions and Canada: 1 year, $6.00; 2 years, $10.00; foreign countries, not including daily editions: 1 year, $8.00; 2 years, $14.00.

Single copies, 25 cents each.

H. E. McCandless, Circulation Manager, 30 Church St., New York, N. Y.

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 103 July 31, 1937 No. 5

In This Issue

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

The Week at a Glance

CARLOADINGS: Freight car loadings for the July 17 week totaled 770 thousand —7 per cent above a year ago, and 13 per cent above the preceding week (which included the July 4 holiday).

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VAN'S MERGER: Senator Wheeler has notified the New York Stock Exchange that his finance probe committee has not yet given approval to the merger of the Alleghany Corporation and the Chesapeake Corporation, holding companies which control the Van Sweringen lines. Following this notice, the two corporations withdrew applications to the New York Stock Exchange for listing on the exchange of certificates of deposit for the securities which were to be turned in as a part of the consolidation procedure.

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N. DE M. SOCIALIZED: The National Railways of Mexico have ceased to be a corporation with the government the largest stockholder and have become an out-and-out department of the Mexican government, with the labor unions having the principal say-so in how they are to be run. In the news columns herein the details of the change in administration are outlined.

●

P.W.A. TRAFFIC: The Public Works Administration has issued an analysis of railroad traffic developed through P.W.A. activities, which asserts that it is responsible for 620 million train-miles and 105 million man-hours of railroad employment. P.W.A. claims to be a modern "Casey Jones" in the railroad industry.

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SCOTT BROS. CASE: The Southern lines have asked permission to intervene in the Scott Brothers (Pennsylvania trucking subsidiary) case in which the I.C.C., through Division 5, held that railroad collection and delivery service was subject to the Motor Carrier Act. The Western lines had already asked for a reargument of the case before the whole commission.

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MOP REFINANCING: The I.C.C. has postponed further hearings on the reorganization of the Missouri Pacific until September 10 or shortly thereafter—the management and the bondholders' committee having agreed that either party will be at liberty to file its own plan after that date if they have not by then mutually agreed upon a plan. Meantime the N. O. T. & M. bondholders, who were demanding separation of the Gulf Coast Lines from the Mo. P., have been placated.

●

TRAIN LIMIT: The Senate this week passed the bill which would limit freight trains to 70 cars. The eminent Senators McCarran and Wheeler, who led the recent fight to prevent the President from getting the upper hand over the Supreme Court, spoke for the measure—autocratic control of the political power over private industry evidently not being to them an objectionable form of despotism. Senator Bailey warned railroad employees against "killing the goose that lays the golden egg" by destroying the ability of the railroads to employ railroad men.

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D. L. MODERNIZES: An unusually thoroughgoing job of rebuilding an existing car into a modern buffet-lounge, including all the recent improvements available in new cars, has been completed by the Lackawanna and is described in an illustrated article herein.

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CHALLENGER: The Union Pacific has succeeded in creating the informal friendliness of an ocean liner among the 300 passengers who ride its popular coach-tourist train in each direction daily. An illustrated article herein brings up-to-date the description and performance of this outstandingly successful train.

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WOOD PICKLING RISE: The amount of timber given preservative treatment in the United States in 1936 was 24 per cent greater than in the preceding year, the railroads maintaining their position as the biggest user of treated timber. Details of the advance in wood preservation are given in a short article herein—which tells also the type of treatment used.

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CARS ON ORDER: Freight cars on order on July 1 this year totaled 42,624, the greatest number for any corresponding date in 13 years, according to the monthly summary of the equipment situation of the Association of American Railroads.

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SOARING PRICES: Increased prices of the things the railways buy will cost the carriers almost a quarter of a billion dollars more than the same materials would have cost four years ago. An article in this issue analyzes the price rise—and tells which commodities are most affected by it.

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TRUCK TRAFFIC: Motor truck loadings in June, according to the American Trucking Associations, Inc., were up 15.8 per cent over June last year, but showed a drop of 3.2 per cent under May this year.

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O. & W. TRUSTEE: Vincent Dailey, whose application for authority to serve (with F. E. Lyford) as co-trustee of the N. Y. O. & W. the I.C.C. denied, has petitioned the commission for a reconsideration of this decision, and a public hearing has been granted for August 5.

●

CROSSINGS PROGRAM: As of June 30 the federal government's works program for grade crossings had completed 1,152 new grade separations, 206 reconstruction jobs and 217 projects protected by signals; and on that date 698 separations were under construction, along with 123 reconstruction projects and 373 protection installations. Projects approved but not yet begun totaled 136 separations, 28 reconstruction jobs and 360 protection installations.

UPBRAIDS U. P.: The Union Pacific will not be permitted to operate buses to its famous new resort, Sun Valley Lodge, in Idaho, if the Interstate Commerce Commission follows the recommendation of a joint board headed by State Commissioner Harry Holden of Idaho. Holden not only wants the I.C.C. to deny the authority for the operation to the U. P., but he seeks to have the road punished for alleged operation of buses to the resort without proper certification.

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MOUNTAIN-PACIFIC RATES: The Interstate Commerce Commission has postponed from September 8 to September 28 the date of the further hearing in the rate increase case (Ex Parte 115) which involves transcontinental - Mountain - Pacific rates. Oral argument has been put over from September 9 to September 30.

●

AIR FILTER RESEARCH: The Equipment Research Division of the Association of American Railroads is going to conduct a research of air-conditioning filters in use on the American and Canadian railroads. Tests will be made in the engineering laboratories of the University of Minnesota, supplemented by road tests under actual service conditions.

●

ACCIDENTS UP: In April this year there were 721 train accidents, an increase of 22.6 per cent over April last year—and attributable, at least in part, to the fact that there was an increase in train miles this year as compared to last. So the Senate, in its wisdom, passes the train limit bill—to provide for more trains and more and bigger train accidents; all on the pretext of promoting safety.

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EASTMAN HOLDS JOB: Commissioner Eastman's renomination to the Interstate Commerce Commission, only recently made by President Roosevelt more than six months after his term had expired, has been confirmed by the Senate; so the Commissioner's job is safe now until the end of 1943. No action has been taken so far with respect to Commissioner Tate, whose term likewise expired at the end of last year and who continues to serve under the provision which keeps a Commissioner in his job until his successor is named.

●

CHARITY RATES: The Senate has passed a bill which permits the railroads to offer relief rates to afflicted areas, without at the same time being punished for discrimination because it extends such charity to those who need it and not to those who do not. Legislation to help the roads give away something, such as this bill and the "Seeing-eye Dog Bill," and to limit their efficiency (such as the train-limit bill) appear to get through to passage despite the legislative jam in Washington. But bills to give them a better "break" are something else again as, for instance, the Pettengill bill.

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●

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RAILWAY AGE

All Out of Step But A. F. Whitney?

The railway labor organizations have won wide public approbation—and, incidentally, valuable concessions for their membership—during the past few months by use of the machinery of collective bargaining rather than high-pressure political methods. Most important among the concessions won, of course, has been the pension agreement, achieved by collective bargaining, in a period better expressed in weeks than in months, after years of high pressure politics had not been able to produce a plan which would stand up in the courts. Still other important improvements in conditions have been secured recently by the same method—the agreement as to firemen on Diesel locomotives and that reducing hours and granting longer vacations to certain express employees, to mention only two.

Why Mr. Whitney Is Dissatisfied

But one labor executive at least—A. F. Whitney, president of the Brotherhood of Railroad Trainmen—views this whole tendency with alarm; and has withdrawn from membership in the Railway Labor Executives Association because of it. In the July issue of the "Railroad Trainman," official organ of the B. of R. T., Mr. Whitney publishes a wordy explanation of his resignation. While it is not easy to find therein clear-cut and specific reasons for his dissatisfaction, certainly among the events for which his fellow labor executives are responsible there are at least the following which disturb him:

1. He does not favor the Railroad Retirement Act in the form in which it was finally adopted, his objection, seemingly, being not so much that the act is not sufficiently generous with employees, but rather that it is not as costly to the railroads as he would like to have it.

2. He is dissatisfied with the policy which some of the labor executives have followed of seeking their objective of improved conditions for their members by collective bargaining rather than by political pressure for legislation.

3. He is still angry with his fellow labor executives for having agreed to the 10 per cent pay deduction during the depression—which railroaders recognize was a mightly slight concession for them to make by comparison with the reduction in incomes which practically everyone else had to suffer during the depression.

4. He is dissatisfied with the agreement with the railroads, achieved by collective bargaining, to protect employees whose jobs are lost in consolidations. Mr. Whitney's view is that the unions should strenuously "oppose every proposed consolidation" which involves jobs of railway workers. (Presumably, he would oppose such consolidation even if it were necessary in order to avoid suspension of service entirely, and consequent loss of employment to all the workers involved.)

Taking Care of the "Old Timers"

As for Mr. Whitney's dissatisfaction with the Railroad Retirement Act, it need only be recalled how much more liberally railroad employees are provided for under it than are the ordinary run of citizens under the Social Security Act; and how previous pension legislation had been overturned by the Supreme Court. Mr. Whitney evidently preferred to have "old heads" in railroad service keep working for another 10 years while this question was fought out in politics and the courts, rather than make the slightest concession to the industry which was ready, voluntarily, to deal far more liberally with its employees than the law requires other industries to deal with theirs. As a letter, supposedly written to Mr. Whitney by George M. Harrison, chairman of the Railway Labor Executives Association, points out:

> Who are you Mr. Whitney to offer criticism of the committee who negotiated the pension plan amendments with the carriers' committee, particularly with regard to the "old timers" on roads where pension plans do not obtain? Did you ever exert yourself in behalf of these "old timers"? You know you did not; but this committee did and what's more secured to those "old timers" now in the service of roads where no pension plan exists all of the benefits that will accrue to "old timers" on roads where gratuity pension plans do exist.

Behind Mr. Whitney's preference for political action to main reliance upon collective bargaining it is not difficult to see a certain shrewdness. Political action with regard to working conditions has to masquerade under the guise of promoting safety; and, so far, the principal political work of the railway unions has been in the interest of such class legislation as "full" crew laws—laws which aid no class of employees directly save the

trainmen; and which, by impoverishing the industry and weakening it in competition with other agencies of transportation, tend to restrict the jobs and opportunities of all other classes of railway employees. Naturally collective bargainers representing all classes of railway labor are not likely to devote all their efforts to advancing the selfish interests of one class of railway labor alone. They would be foolish if they did—just as they would be if they supported a legislative program the only beneficiaries of which would be the trainmen, while all other classes suffered by it.

The Train Limit Bill

The train limit bill which has just been passed by the Senate is a typical piece of class legislation which, on its face, would seem to promote the employment of trainmen and enginemen. Actually, its first effect might be just that—at the expense of employment to maintenance and mechanical department employees, clerks and all other classes of railroad workers. The railroads, as all railroaders know, are striving desperately to catch up the maintenance work accumulated during the depression; and to secure new equipment and get in shape to meet the demands of reviving business. Every dollar that they are forced to spend for excess train and engine employees means a dollar less for mechanical, maintenance and clerical employees who need the money at least as badly as do the train service employees. And, of course, in the long run, train limit legislation, like a "full" crew law, is bound to weaken the railroads in their competition with other forms of transportation and thus limit the employment of all classes of railroad employees—train and engine service included.

The train limit bill, in short, is a racketeering measure—by which term we mean a device by which tribute is exacted with no corresponding value contributed by those who exact the tribute. Any maintenance, signal, mechanical or clerical employee who sits idly by while legislation is enacted to "make work" for the best paid and most leisured class of railroad employees—at the expense of employment of other workers who would contribute something for the money they receive—has a very poor conception of which side of his bread is buttered.

The wage concession of 10 per cent made by the standard railway labor organizations during the depression was very slight as compared with the decline of wages and incomes elsewhere in the economic system. If railroad labor had not been willing to accept quickly such a reasonable adjustment, it is quite likely that the railroads would have been forced to press for a much larger one; and, what is more, their chances of succeeding in such an attempt were probably very good. So, if Mr. Whitney had had his way, the wage sacrifice made by railway employees might quite likely have been far greater than that actually brought about.

There are many competing branch and light traffic lines in this country, and other costly duplications of facilities, such as freight houses, which are an impediment to railroad progress. In particular they are a handicap to railway labor, on the old and true observation that "you can't get blood out of a turnip." These competing facilities are part of the cause why the railroad industry remains a "turnip," which must fight every effort to reduce what little net earnings it has. Now Mr. Whitney opposes making the slightest concession in the way of consolidation which would continue at least a part of these facilities in operation; and make some, at least, of the jobs they provide reasonably secure. Let there be no mistake about it—either some method of reducing costs must be found or such costly facilities must be abandoned entirely; and what becomes of "protecting the worker" when that happens?

Extracting Without Destroying

Whether the railway labor leaders recognize it or not (and we believe some of them may be beginning to do so), they have acquired a large measure of power over, and hence of responsibility for, the future service of the railway industry to the public. They have a duty to their members to fulfill, of course, which is their first responsibility; but *in protecting the interests of their members, they have also the duty to society to see to it that their objective is secured with as little impairment as possible to the efficiency and earning power of the railway industry.* The agreement with respect to pensions is an admirable example of adherence to this principle. A standard of protection for railway workers was set up so superior to that provided for other classes of industrial employees as to put railway workers in an entirely separate category; and yet that objective was achieved, through reason, in such a manner as not to impose an impossible financial burden on the railroads.

The essential difference between collective bargaining and political action is that between the surgeon's scalpel and a meat axe. The former, guided by men who have a full knowledge of all the attendant circumstances, reaches the vital point with a minimum of bloodshed. The latter goes to the point all right, but it may destroy the patient in the process. It is our belief that there will be far more for railway employees of the future to look forward to in better conditions and better wages, if the unions today follow a technique of extracting without destroying—and, from the record, it appears that the persons in the railway labor movement whom Mr. Whitney so strenuously opposes are rather better masters of that technique than he is. As Mr. Whitney himself says, toward the close of his article of explanation:

"As we see it, our greatest need is to cultivate the spirit of self-sacrifice for the common good—sacrifice of our haughty prides and prejudices and relinquishment of our suspicions against each other, and our greed for personal gain."

The Challenger Double-Heading Out of Omaha with Its Usual Heavy Train

What About the Challenger?

Union Pacific coach-tourist train makes remarkable record as a traffic-builder

A FEW years ago, the Union Pacific decided to test the truth or fallacy of the then prevalent idea that the railways were doomed, so far as low-cost passenger transportation is concerned. The result was the Challenger, a coach-tourist train embodying many new and revolutionary ideas. This train, operating between Chicago and Los Angeles in connection with the Chicago & North Western, has proved to be one of the largest-earning trains in the country, carrying approximately 300 passengers in each direction daily, most of whom hold through tickets. The significant feature of this patronage is that it consists largely of new business.

The passengers of the Challenger are an especially friendly group, corresponding more to tourists on an ocean liner than the average conception of passengers on a train. To a large majority of them, a trip to California comes under the classification of high adventure, and they are out to enjoy it to the utmost. The friendliness of the passengers is testified to by the fact that there is always rivalry among the dining-car waiters of the U. P. for the jobs on the Challenger. The work is considerably harder, because there are many more passengers to be served. The average tip is small, seldom exceeding a dime, although the total tips amount to approximately the same sum as on other diners. However, the waiters are unanimous in their opinion that they would rather work harder for the same or slightly less money on the Challenger, because its passengers are appreciative of good service and much less captious and critical than other dining-car patrons.

History of the Challenger

Early in the summer of 1935, the Union Pacific eliminated coaches and tourist sleepers from its Los Angeles Limited and put them into another train which was operated for a time as a second section. Then, in August, 1935, the Challenger was christened and given an identity of its own.

The success attained was immediate and lasting, and, in the spring of 1936, the U. P. began the modernization of the equipment for the Challenger, on which $600,000 was spent. This program comprised the remodeling of 68 cars, including 47 coaches, 16 Pullman tourist sleepers, and 5 diners, to produce greater riding comfort and to conform with the innovations in coach-tourist travel which are described in detail later. Included in this remodeling was the provision of roomy, modern coach seats, with adjustable backs. A new color scheme was also part of this rebuilding, which made the train much more attractive to all passengers, and particularly to women.

In April of this year, a lounge car was added to each train, for the benefit of the Challenger sleeping car passengers. These are also remodeled cars, but modern interiors and deep, comfortable chairs were installed, so that the cars have the comfort and appearance of the newest equipment in service.

Consist

At present, in addition to the through Los Angeles-Chicago coaches and Challenger sleepers, a Minneapolis-Los Angeles tourist car is carried and also a Los Angeles-Denver car which is transferred to and from the Challenger at Salt Lake City and handled between Denver and Salt Lake City on the Pony Express, a new fast train affording Challenger service to its coach and tourist passengers.

A Challenger sleeper is also carried between Chicago

and Portland, Ore., which is transferred to and from regular trains at Green River, Wyo. However, as soon as remodeled equipment, now approaching completion in the U. P. shops, is ready for service, a separate San Francisco-Portland Challenger will be run, splitting at Green River, with the San Francisco section proceeding via Ogden and the Southern Pacific, and the Portland section via Pocatello, Idaho, to destination. Not counting the second sections which are frequently necessary, this will provide the equivalent of three Challengers daily in each direction.

Innovations

The outstanding innovations of Challenger service are probably the efficient stewardess service and the low-cost meals in the diners, and these will be described later. The Challengers, however, embody many other innovations that attract passengers in large numbers and have helped to make it the best paying train on the U. P., if not in the country. For example, two special coaches are provided for the exclusive use of women, one of which is for women with children. Nobody is permitted to enter these coaches other than the women and children passengers, except uniformed trainmen in the course of duty, and even these latter must secure the permission of the stewardess before entering.

Porter service is available throughout the train, and "red caps" at the stations are prohibited from accepting tips from coach passengers. At the larger stations, passenger agents are in attendance to render every possible assistance to Challenger passengers.

To aid coach passengers in getting a good night's sleep, free pillow service is available. Furthermore, all tickets are pouched, and the passengers are freed from the annoyance of being awakened at each division point to show their tickets. There is no loud and raucous calling of stations during sleeping hours. Short-haul passengers are awakened individually by the trainmen or stewardesses as they approach their destinations, without disturbing other passengers.

Promptly at 10 p.m. all bright lights are turned out and remain out for the rest of the night. A new lighting system has been devised for all coaches, consisting of aisle lights equipped with "milk" globes to give indirect lighting, and sidelight fixtures located in the baggage rack support, each containing a white and a blue lamp. Only the blue lights are used after 10 p.m.; these are patterned after the lamps used in hospital rooms and are conducive to sleep rather than being sleep-destroying. Passengers desiring to remain awake later use the commodious lounge rooms for men and women at each end of the car, where chairs are available.

Unremitting Attention Necessary

These innovations, which have proved so popular, were not the result of sudden flashes of inspiration. Rather, they are the result of long and careful study of passengers' wishes. Every officer at all concerned with its operation, including the executive vice-president, makes frequent trips on the Challenger, mingling with the other passengers and hearing their comments and suggestions. On one such trip, for example, as the Challenger was approaching Cheyenne, the vice-president heard a woman comment on the incongruity of having cuspidors in the women's lounges.

"Women," she said, "smoke but they don't spit."

Immediately, a wire was dispatched to the superintendent at Cheyenne, and, when the Challenger arrived there, ash trays on stands were substituted for the cuspidors, and are now standard equipment on all the Challengers.

The management of the U. P. has felt that it was not consistent to provide the service and then allow it to shift for itself. Constant and unremitting attention is given, herefore, to every detail of Challenger operation. For example, the train is advertised as being air-conditioned throughout. Many other trains are similarly advertised, but the Challenger is one of the few trains that has never had a "hot" car in it since it began operation. The inevitable emergencies inseparable with passenger operation have occurred with the Challenger quite as frequently as with other trains, with the difference that emergencies are not accepted as valid excuses for the insertion of "hot" cars on this train. The Challenger is advertised as an air-conditioned train, and an air-conditioned train throughout it has remained, regardless of emergencies.

Stewardess Service

Registered nurses pioneered in a new branch of public health and industrial nursing in August, 1935, when seven graduate nurses from Los Angeles, Salt Lake City and Omaha hospitals were selected to serve on the Challenger. Since the extension of the Challenger service, the Union Pacific has also installed graduate nurses on the Pony Express and on the new streamlined trains operating between Chicago and Los Angeles and San Francisco, and between Chicago and Denver, and the new "Forty-Niner" between Chicago and San Francisco. At the present time, 39 nurses are thus employed.

Definite qualifications for stewardesses have been established. Each one must present an attractive personality and appearance and must show adaptability in understanding the situations confronting her. Each nurse must be registered and a member of the American Nurses' Association. A substantial experience following graduation, with recommendations from schools of nursing, superintendents of nursing and of hospitals where previously employed, and from chief surgeons, is required to give evidence of her professional efficiency and conduct. Executive secretaries and registrars are asked for suggestions. Physical requirements include: age from 25 to 28, preferably 25; height, from 5 ft. 3 in. to 5 ft. 7 in., with a corresponding weight of from 125 to 145 lb.; and physical condition which conforms to the requirements established for railroad employees in general and which is determined by physical examination.

Attractive two-piece uniforms of French blue serge are worn, with a heavy cape of darker blue in the winter months. In the air-conditioned train equipment, keeping those uniforms fresh and clean is no problem. The length of a trip determines the rest period at terminal points, and varies from 12 to 36 hours at the turn-around point, with a corresponding rest period of 36 to 60 hours between trips at the home terminal. At any time during a trip, the stewardess is subject to call, but her regulation rest period is from 10 p.m. to 6 a.m. Comfortable sleeping quarters are provided in the Challenger sleeping cars or in the lounges of the coaches used exclusively for women and children. The railroad company assumes living expenses incurred away from the home terminal.

An important duty of the stewardess is to assist mothers in the care of their children. One trip, for example, was made with 67 children aboard. With 50 children under the age of five on another trip, one nurse found

1. Spacious Women's Lounges Are a Challenger Feature; 2. Nurse-Stewardesses Ride Each Train; 3. Nurse-Stewardess and a Floorwalker are Part of the Los Angeles City Ticket Office Staff; 4. The New Lounge Car for Challenger-Sleeper Passengers; 5. The Coaches Are Roomy and Comfortable

plenty to keep her busy—bottles to be sterilized, food formulas to prepare and vegetable and cereal feedings to be served. Each nurse learns to know the different types of formulas prescribed by pediatricians from every section of the country. She does this work in the pantry and kitchen of the dining car. Although at first a bit reluctant to permit the nurses to intrude into their domain, the chefs will now converse freely about the problems of child nutrition.

Elderly people traveling alone across the country to live with other members of the family present a pathetic situation. The stewardess' understanding of these lonely people and her friendship and sympathy are most appreciated. If they are crippled or in any way unable to care for themselves, the stewardess sees that in every possible manner the trip is made comfortable and pleasant. During the summer months, numerous children travel alone. On one train a stewardess had a combined "family" of 10 children under her care. Not long ago a father placed four children in the stewardess' care who were going to Chicago from Los Angeles to live in a children's home because of the death of their mother. It is not at all uncommon to find a bereaved father bringing a baby back to his people to be cared for there. His burden is lessened because of the stewardess.

Nursing Treatments

Diabetic, chronic cardiac and asthmatic patients are frequent travelers. They are usually educated to their symptoms and the medicinal treatment required, but at the same time they are grateful for the attention of the nurse on board the train. On one occasion a young mother traveling to California with three children and suffering from asthma could not administer her own hypodermic injections of adrenalin when her attacks became severe. The nurse remained with her until she was relieved, and returned at intervals to repeat the hypodermics. In lifting his two-year-old daughter across the track to the main platform, a father jerked her arm, with a resulting fracture. A cheese box made a splendid splint, and with her arm in a sling, the child was soon comfortable and asleep. Later, a physician called to re-apply the splint and to assure the parents that they might continue to their destination.

On another trip, it was necessary to move to a hospital at Salt Lake City a mother suffering from carcinoma of the breast. Her three children, all under the age of 10 years, continued to Los Angeles in the care of the stewardess. An eight-year-old diabetic developed severe twitching two hours after eating her breakfast one morning, alarming all the passengers, including the grandmother who accompanied the child. The juice of three oranges quickly revived her and instructions were given as to temporary dietary measures and insulin dosage. A four-year-old boy, playing too strenuously, injured his head on a window opener. After cleansing his face and head and clipping his hair, an antiseptic and a dressing were applied until the physician called.

A kit holds a supply of common medicinal preparations and first-aid supplies. The kits are equipped in the office of the chief surgeon, and standing orders for medicinal treatments are his. Sedatives and opiates are not included; the stewardess must have an order for securing and administering either one. A physician may be secured at any time enroute.

The Travelers' Aid, which functions in most of the large cities in the United States, helps to locate friends or relatives of destitute passengers. The stewardesses assist the society in looking after children and elderly people traveling alone and in helping them in their transfers.

The stewardesses are in charge of a chief stewardess with headquarters in Omaha. As an example of the care with which all details of the Challenger are looked after, each stewardess, at the end of each trip, delivers a written report of her journey, in person, at the office of the executive vice-president, and supplements it by such verbal details as are required.

Dining Car Service

Breakfast costs 25 cents, luncheon 30 cents and dinner 35 cents on the Challenger. These meals are served in the neat, attractive "coffee shop" type diners, designed especially for this service. Not only does the U. P. serve the meals cheaply, but a net profit is shown on the Challenger dining-car operations, largely because the meals are standardized and because practically 100 per cent of the passengers eat all their meals in the diner every trip.

The success of these low-cost meals and their popularity has been such that it became necessary to carry two dining cars on each train so that all the passengers may be served without undue waiting. This summer, however, the Challengers will be equipped with new design "two-unit" dining-cars. These will consist of one car containing the large kitchen necessary for serving up to 700 or 800 meals daily. This car will also contain air-conditioned sleeping quarters for the crew.

The other unit will consist of a serving pantry and sufficient tables and chairs to seat 68 patrons at one time. These cars will have an inside measurement some six inches wider than the average car. This permits of installing tables for four, side by side, particularly since the Challenger meals, while providing plenty of food, do not have the elaborate trimmings that require a large amount of table space.

Accustomed as they were to high prices in dining cars, it was a difficult matter to get the passengers to use the Challenger diners at first. Leaflets describing the low-cost service were distributed at each seat, but this proved insufficient. Then, for some months, the stewards went through each car of the train before meals and delivered a short lecture on the low-cost meals. This had the desired result, and the lunch basket became a thing of the past on the Challenger, once the passengers discovered that they could be well fed at a total cost of 90 cents a day for three meals. An extra charge is made for meal service outside the diner, but this charge is waived for crippled or infirm passengers, who are served at their seats by the stewardesses.

Sales and Advertising

One of the sights of Omaha is the largest electric sign west of Chicago, on the roof of the general office building of the U. P. This sign advertises Challenger service. A national advertising campaign has also been undertaken, and all U. P. and C. & N. W. ticket offices advertise the Challenger prominently. In addition, the train has received wide publicity in national magazines because its novelty has attracted national attention. Fully half the visitors to the U. P. office building in Los Angeles inquire for the "Challenger office."

An interesting change has taken place in the Los Angeles ticket office, as a result of its patronage by so many Challenger passengers. As a result of a study of the passengers' needs by the executive vice-president, a

(*Continued on page 142*)

Senate Passes Train-Limit Bill

Put over as "safety" measure which, McCarran says, will create no jobs—Bailey warns employees of killing "goose that lays golden egg"

WASHINGTON, D. C.

THE train-limit bill, which the Association of American Railroads has estimated would increase railroad operating expenses about $90,000,000 per year on the basis of 1936 business, was passed by the Senate on July 26 without a record vote. The only roll call in connection with the measure (S.69), which would limit the length of freight trains to 70 cars, came on the motion of Senator Hale of Maine to send it back to the committee on interstate commerce. This motion was defeated 51 to 17.

Two amendments were adopted on the floor—one, proposed by Senator Harrison of Mississippi, changed the effective date from July 1, 1937, to July 1, 1938, and the other, proposed by Senator Pepper of Florida, broadened the provision for exemptions in times of emergency break-downs on the road. Senator Andrews of Florida sought unsuccessfully to attach a third amendment which would have exempted trains of refrigerator cars carrying perishables. Also, the attempt of Senator Copeland of New York to attach the anti-lynching bill as a rider was defeated in a roll-call vote 41 to 34.

Senator McCarran, of Nevada, sponsor of the train-limit bill sold it to the Senate as a "safety" measure, denying that it would have any important effect on employment or that its cost to the railroads would be significant. Opponents made frequent references to the fact that no hearings were held on the bill, but proponents dismissed such protests with citations of hearings held on similar bills introduced during previous sessions of Congress. Senator McCarran was the principal advocate of the bill's passage, although Senator Wheeler of Montana made a speech in its favor. Among the speeches in opposition were those of Senator White of Maine, Senator Dieterich of Illinois and Senator Bailey of North Carolina.

Killing Goose That Lays Golden Egg

The latter at one point cited the statistics of fatal accidents on the highways, and asked what Senator McCarran would say about "bringing in a bill to meet the whole situation." The North Carolina senator contended that "it would be a great pity to turn trucks and automobiles loose, killing 36,000 persons a year, and cause the railroads to go to the great expense involved by the proposed legislation, when the number of persons injured on railroads is far less than the number injured on highways." Also, Senator Bailey warned railway employees, whose legislative proposals, he said, he has usually voted for, that "they may keep on making demands on the railroads until they kill the goose that lays the golden egg." This, he went on, is a matter of common sense, and while he would like to see employees get all they can, he nevertheless feels that "we cannot continue to put burdens upon the railroads without destroying their capacity to employ railroad men."

The debate on the bill and the attempt to attach to it the anti-lynching bill consumed virtually all of the Senate's 6¼-hours session on Monday. The train-limit bill was the unfinished business of the Senate when that body recessed on July 23. Immediately upon obtaining the floor Monday Senator McCarran yielded to Senator Harrison who offered the amendment to make the act effective on July 1, 1938. The Mississippian referred to the pension taxes which have just been imposed upon the railroads, and gave as the reason for the amendment his belief that "we ought not to do too much at one time, but ought gradually to play the matter along." Here Senator White suggested that if the effective date were to be postponed a year, consideration of the bill itself should be postponed in order that hearings might be held. To the latter Senator McCarran replied with references to hearings on the similar bills in previous sessions.

Opening his speech in favor of the bill, Senator McCarran wanted it understood at the outset that in his judgment the measure "is a beneficial bill for the railroads." He proceeded to discuss the workings of slack in a long freight train, declaring that slack action "has resulted in the destruction of property valued at many millions of dollars each year, and that expense has all been borne by the railroads themselves." Then he brought in the average freight train of "less than 47 cars," claiming that the railroads "appreciate that the short train is the economic train, that the short train is the speedy train, that the short train is the train on which property is least likely to be destroyed."

McCarran Sees No New Jobs

Turning to "that phase of the bill which has to do with human life as it is engaged in the railroad service," the speaker called again upon the "result of slack action." The real effect, he said, is that those in the caboose are killed—"because, without warning, they are catapulted against the sides of the caboose, hurled from one end of it to the other, thrown off trains. . . ." After further discussion of the effect of slack action, and references to tests on that subject, Senator McCarran answered a question from Senator Smathers of New Jersey as to the additional railroad employment which would be created. The answer which the Nevada senator gave, "without fear of successful contradiction," was that the bill "will not increase the number of employees in the railroad service." He agreed with Senator Barkley's suggestion that only about 25 per cent of the trains engaged in interstate commerce are over 70 cars in length.

Throughout the debate Senator McCarran was from time to time reminded of the recent court decision holding his own state's train-limit law unconstitutional. He dismissed these with the assertion that the Nevada situation had no bearing on the federal bill. When Senator Pope of Idaho said he had several protests against the bill from shippers of farm products, particularly perishables, Mr. McCarran expressed the view that such protests were stimulated by railroads. Also, the bill's sponsor assured Senator Pope that "there is nothing in the preachment that the short-train system will increase freight rates."

Again the question of increased employment came up

and Senator McCarran told Senator Bailey that few if any new jobs would be created. Senator Bailey then asked several questions on the bill as a safety measure, leading up to the above-mentioned reference to highway accidents.

Senator White in his speech against the bill recalled that "in its origin" it was "a device for spreading employment on the railroads"; and expressed the view that "its garb has been changed and it has become a safety measure principally because of the fact that as we emerged from the depression men were again being employed upon the railroads in increasing numbers." Mr. White continued to discuss accident statistics and signal tests on long trains, and cited testimony at hearings on similar bills to show what the cost to the railroads will be. He closed by stating that if he could be convinced that the bill would make any contribution to safety he would be for it. He believes, however, that "the testimony as a whole points entirely in the other direction . . . if we pass this measure we shall place in jeopardy the life of trainmen, and not legislate in behalf of safety."

Senator Bailey looked upon the bill as if it were one to "increase the taxes of the American people by $150,000,000 a year." This tax, he added, is in the form of freight rates; and "the thought that we can put an annual expense of $150,000,000 on the railroads and that it will be paid by the railroads is an absurdity—the railroads have not the money." On the question of safety Senator Bailey said:

Two Lions More Dangerous Than One; Also Two Trains

"Two lions are more dangerous than one lion. Two assassins are more dangerous than one assassin. Two railroad trains are more dangerous than one railroad train. The testimony here is that there are over 230,000 grade crossings in the United States. A train of 100 cars passes each one time. A train of 70 cars passes each one time, and the other train of 30 cars will pass it at another time. Two grade crossings for one. So we have in the second case two trains passing the crossing instead of one. There is where the accidents are occurring. . . . So by increasing the number of trains we increase the danger; we do not decrease it."

The speaker continued to outline the highway and waterway competition with which the railroads are faced, leading up to his warning that further burdens will tend to destroy the capacity of the railroads to employ railroad men. And, if the result be government ownership, he added, "God help this country . . . when we ever commit our federal government to the national policy of railroad ownership."

Senator Dietrich pleaded for a fair deal for the railroads, and said that the bill is without merit as a measure for promoting safety, efficiency and economy, as claimed by Senator McCarran—"because the roads themselves, giving them the presumption of being managed by sensible men, would naturally provide for the operation of their facilities with the greatest economy, with the greatest efficiency, and with the greatest safety, because if they fail in any one of these the railroads themselves suffer the injury." Thus Mr. Dietrich thought the bill should be recommitted and given further study.

Wheeler Defends Bill

Senator Wheeler discounted the claims of the railroads as to additional costs which the train-limit would bring, preferring the testimony of "practical railroaders" on the safety angle to that of "statisticians and college professors." He is firmly convinced that "for reasons of efficiency and safety to the employees themselves, the enactment of this bill into law would be a good thing for the general public, for the shippers of the country, and in the long run for the railroads themselves." He prefaced this conclusion with the prediction that if railroads are to hold their traffic they will be forced to shorten trains and speed up service.

Hale Tries to Recommit Bill

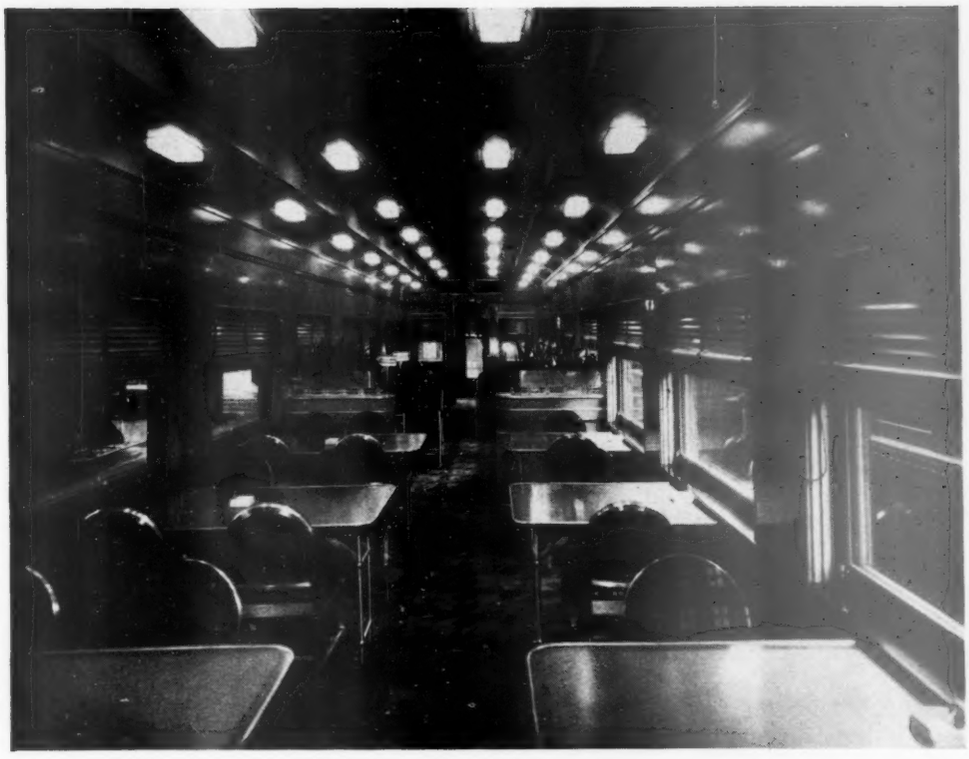
After several senators had explained their votes on the anti-lynching rider, Senator Hale observed that he had "learned a good deal about lynching in the south" but he had yet to learn "how the pending bill can add to the safety of the employees of the railroads." He thinks that there is no question that "it will add to the danger of the public in the way of grade-crossing accidents . . . and that it will cost a very considerable sum of money." Thus his motion to recommit the bill, which motion was defeated on roll call by the 51 to 17 vote mentioned at the outset.

The bill was then passed and it now goes to the House of Representatives where the railroads are expected to ask for hearings before the committee on interstate and foreign commerce. Two train-limit bills have been introduced in the House—H. R. 6795, put in some time ago by Representative Withrow of Wisconsin and H. R. 8024, offered this week by Representative Scrugham of Nevada.

* * *

Photo by Austro-Daimler

A Railcar Ascending an 80-Year-Old Brick Viaduct on the Austrian Semmering Route



Looking from the Buffet Section Toward the Lounge and Solarium

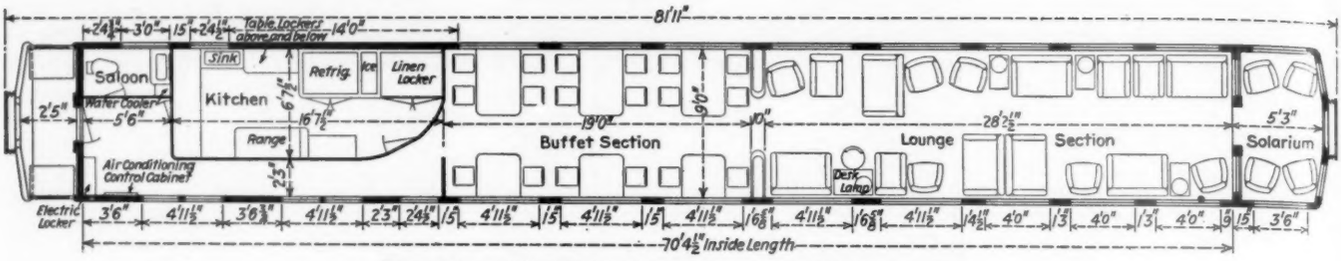
Lackawanna Modernizes Buffet-Lounge Car

New equipment for Chicago Limited embodies modern decorative scheme with new ideas in lighting and air conditioning

ON June 28 the Delaware, Lackawanna & Western added to its Chicago Limited a buffet-lounge car which represents an excellent example of the possibilities of the modernization of passenger equipment. This car has been completely rebuilt, it having formerly been one of the road's business cars. It is operated between Hoboken, N. J., and Elmira, N. Y., on train No. 5 westbound and train No. 2 eastbound. On the westbound run the Chicago Limited carries a diner and this lounge car is used primarily to serve refreshments and light buffet meals. On the eastbound run Train No. 2 leaves Elmira at 7:30 a.m. Eastern standard time and the car is utilized to serve breakfasts, there being no dining car on the train.

This buffet-lounge car, bearing road No. 787, is an unusually long car, being 81 ft. 11 in. over the buffers. It has an inside length of 70 ft. 4½ in. and an inside width of 9 ft. The interior has been completely rearranged and the car designed primarily for rear-end service. At the forward end of the car is a kitchen and service pantry built in on one side of the car with the passageway on the other side. Immediately back of the kitchen and pantry space is the dining space having three large tables seating four persons each on one side of the car and three small tables seating two persons each on the other side. In the lounge section immediately to the rear of the dining section are single and double aluminum-frame upholstered seats for 29 persons. The

Decorative Mirrors and a Rounded Kitchen Wall Give the Appearance of Greater Interior Length



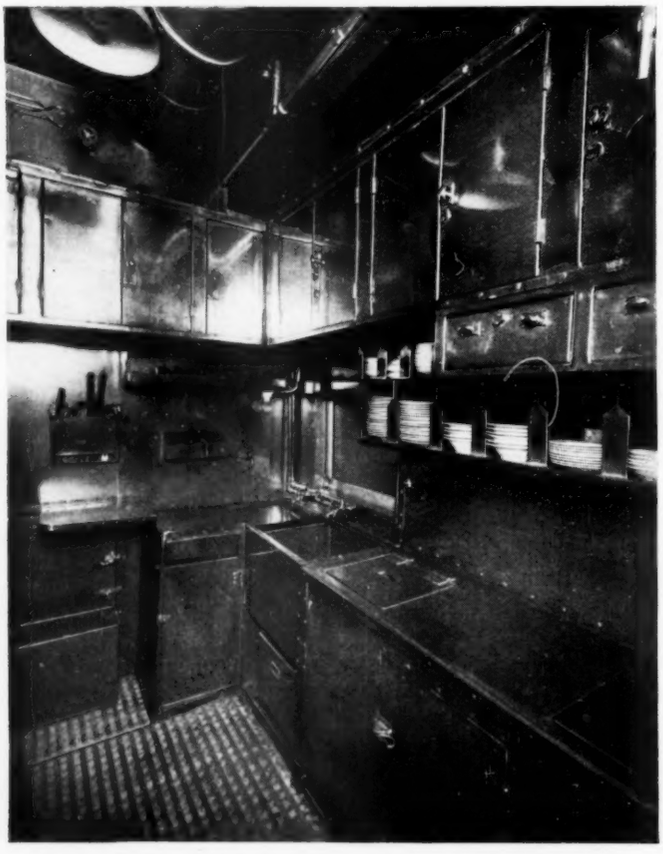
Floor Plan of the Modernized D. L. & W. Buffet-Lounge Car

rear observation platform of the original car has been transformed into an exceptionally attractive, glass-enclosed solarium, with seating space for four persons.

In the dining section the tables, which have turquoise blue Formica tops edged with red, are secured to the car structure, by the usual demountable fastener, while the chairs in the dining and lounge sections are movable. Separating the dining and lounge sections are two illuminated turrets, one on either side of the car, which are constructed of aluminum and glass with copper flower urns. Indirect lighting from inside these turrets produces a pleasing effect. The entire furnishings and decorative scheme of the car interior—floor covering, furniture, upholstery, color scheme and venetian-blind window treatment—was designed by the designer and decorators of the contract department of John Wanamaker, New York. The walls of the car, of graduated tones of beige, are accented by a rose-rust stripe that runs the length of the car. The ceiling is ivory beige.

The chairs and seats, which are built up of tube aluminum reinforced with a steel core, have coverings of a rose-rust shade which blends with the carpeting. The chairs in the lounge section are upholstered in a rose-rust and turquoise diamond pattern fabric, while contrast is given to the general effect in the dining section by a plaid mohair pattern for the upholstery on the chairs at the tables. Sofas and large comfortable chairs in the lounge section give a spacious effect, while tables, lamps and smoking accessories of aluminum add to the beauty of the arrangement. Venetian blinds with beige rose-rust tapes add a finished touch to the general decorative scheme. Mirrors and grille works separate the kitchen and corridor from the remainder of the car. The combination of a rounded kitchen end wall and two decorative mirrors has given the appearance of greater length and provided a pleasing contrast to the conventional treatment of the aisle end in dining and buffet cars.

The kitchen is completely fitted with Monel metal fixtures. The range is the usual hard-coal-burning type with charcoal broiler. All of the drinking water used on the car is filtered. The serving facilities in the kitchen are of special interest, the various units of kitchen equipment being so arranged as to minimize interference on the part of the waiters and chef.



The Kitchen Is Finished in Monel Metal and Is Air Conditioned

Lighting Arrangement and Equipment

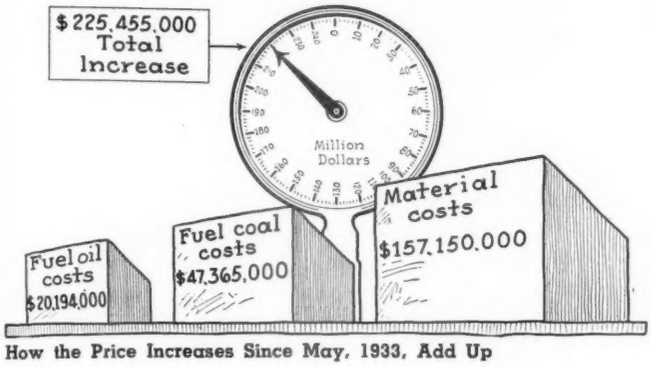
The general lighting scheme in the buffet and lounge sections of the car is carried out by the use of 30 ceiling units, 15 on each side. These units are located in the clerestory and headlining and are staggered in arrangement to provide uniform light. Each unit consists of a double socket in a recess with prismatic bowl-type lens, which projects approximately 1¼ in. below the surrounding surface to provide some ceiling illuminations. Each unit contains two 30-volt, 25-watt lamps. In the buffet section there is one unit directly over each of the six tables and four in the clerestory located between the tables, making a total of 10 units. In the lounge section there is a total of 20 lighting units, 10 on each side of the car, divided equally between the clerestory and the headlining. Two are located in the ceiling of the sun room. There are four portable table lamps in the lounge section. Each of the two aluminum and glass turrets separating the lounge and buffet sections are lighted by three 15-watt lamps located inside in such a manner as to provide even distribution of light on the frosted plate-glass top. The passageway adjacent to the kitchen is lighted by three ceiling type units. Additional ceiling units are located at the kitchen end of the car and in the saloon. The kitchen is lighted by three 50-watt lamps in R.L.M. reflectors and four 25-watt lamps over the working tables.

An unusual application of lighting is that of a special built-in lamp in the side support of the kitchen range which provides light on the working top of the range without any shadows regardless of the position of anyone working in front of the range.

There is an estimated illumination in the lounge and dining sections of eight foot-candles at the reading plane. The average connected load on this car for

(*Continued on page 140*)

Soaring Prices Add $225,000,000 To Railway Costs



How the Price Increases Since May, 1933, Add Up

Sharp increases since October alarm carriers—Relief sought in proposal to increase freight rates

ANNUAL operating costs of the Class I railroads have been increased by approximately $225,455,000, as the result of the higher prices which the railroads are now required to pay for their requirements of materials and fuel, according to estimates made by the Bureau of Railway Economics and presented to the Interstate Commerce Commission by the carriers in support of their application for upward adjustments in freight rates.

The estimate represents the effect on operating expenses for the current year of the weighted average increase in material costs from May, 1933, to June, 1937, assuming that railway purchases in 1937 will be approximately as large as in 1936. Stated in another way, it represents that the railroads will pay at least $225,000,000 more for materials and fuel purchased in 1937 than the same volume of materials and fuel would have cost at the prices prevailing in May, 1933, when material costs were in general at their lowest.

This increased cost is equal to about 25 per cent of what the railroads will probably spend during 1937 for materials and fuel. It is about 7.5 per cent of what total operating expenses are expected to be for the year and it is approximately equal to the net railway operating income that was earned by the railroads in the first five months of 1937.

Fuel Costs Up $67,000,000

Based on the bureau's calculations, increases in prices have added $47,365,000 to the annual cost of locomotive coal, $20,840,000 to the annual cost of fuel oil for locomotives and $157,150,000 to their supply bill.

Fuel costs were based on reports of the carriers to the Interstate Commerce Commission showing the average cost of fuel per ton and gallon, charged to operating expenses and the quantity consumed. Material costs were calculated from the unit prices of 70 items of material reported to the Bureau of Railway Economics by 18 railway systems which consume two-thirds of the materials purchased by the Class I railroads, and were weighted on the basis of annual expenditures made by the railroads for each class of material.

The study was one of the most detailed which has been made by the railroads, and brought out that more than half of the general increase in prices of railway materials since 1933 took place since June, 1936, and that over half of that increase occurred since last October, or in the last eight or nine months.

77 Per Cent More for Fuel Oil

When the railroads applied to the I.C.C. for increased freight rates in April, the average unit cost of fuel was not available beyond the month of February, and it was estimated that there would be an increase of 15 cents per ton in the price of coal. In later testimony introduced in June, it was shown that the average invoice price paid by the railroads for locomotive coal had increased from $1.90 per ton in February to $2.07 in April, or 17 cents, and that the average invoice price paid for fuel oil had increased from 2.22 cents per gal. in February to 2.33 cents per gal. in April, or 5 per cent. Coal prices are 37 per cent higher than in May, 1933, and fuel oil prices 77 per cent higher.

Since April, when the increases in material costs were computed by the railroads, car lumber declined from 18

Average Cost Of Locomotive Fuel—United States

Year or month	Coal: Tons	Coal: Cost excluding direct freight and handling charges	Fuel Oil: Gallons	Fuel Oil: Cost excluding direct freight and handling charges (cents)
1926.....	101,155,412	*a*	2,064,500,770	*a*
1927.....	115,117,577	$2.21	2,376,644,528	2.74
1928.....	111,672,325	2.12	2,441,530,432	2.42
1929.....	112,951,929	2.01	2,568,800,341	2.06
1930.....	97,858,235	1.95	2,320,697,209	1.96
1931.....	81,211,348	1.84	1,989,563,428	1.74
1932.....	66,194,622	1.66	1,743,831,132	1.51
1933.....	66,039,519	1.58	1,695,520,038	1.38
1934.....	70,320,613	1.83	1,853,464,871	1.59
1935.....	71,001,125	1.89	1,978,075,249	1.78
1936.....	80,439,186	*1.89	2,336,421,939	*2.05
May, 1933.....	5,132,010	1.51	141,647,703	1.33
July, 1934.....	5,341,241	1.88	156,005,703	1.65
Dec., 1935.....	6,743,329	1.90	180,828,477	1.82
Oct., 1936.....	7,196,801	*1.92	220,612,070	*2.12
Jan., 1937.....	7,663,540	*1.87	241,674,311	*2.19
Feb., 1937.....	7,208,222	*1.90	211,635,590	*2.22
April, 1937.....		*2.07		*2.33

* Represents purchase price at point of purchase and production. All other costs are "charge-out" prices.

a Not reported for 1926.

Source: Monthly reports (Form OS-E) of carriers to the Interstate Commerce Commission.

Weighted Average Prices of Railway Materials

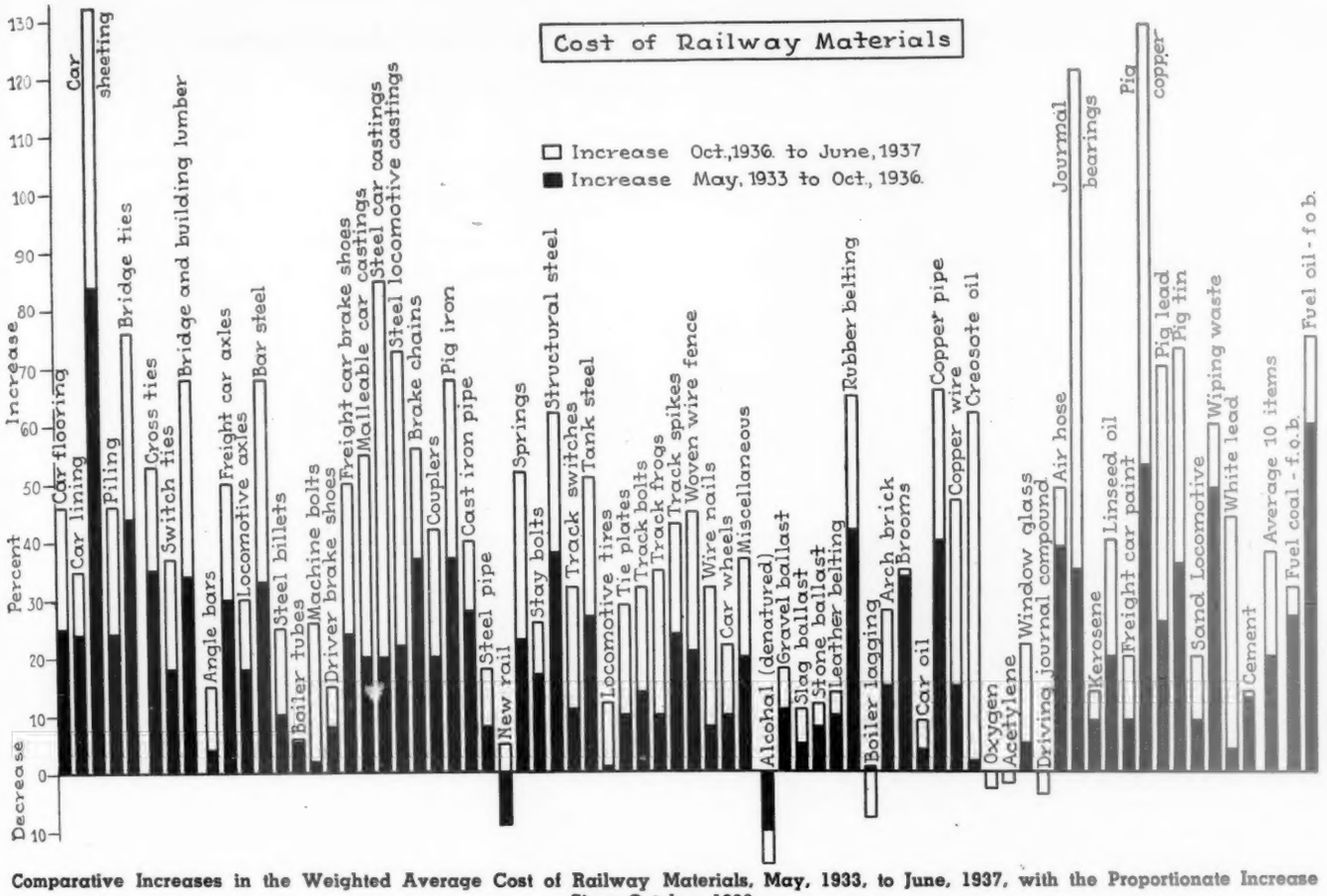
Item	Unit	May 1933	February 1934	December 1935	October 1936	January 1937	May 1937
FOREST PRODUCTS:							
Flooring, freight car	M.B.F.	$19.188	$28.233	$23.468	$23.924		$28.00
Lining, freight car	M.B.F.	17.911	25.176	21.177	22.368		24.28
Sheeting, freight car	M.B.F.	21.201	37.280	37.327	38.985		49.218
Piles	Lin. ft.	.100	.111	.113	.124	Not	.146
Bridge ties	M.B.F.	17.804	25.844	24.053	25.927	reported	31.350
Cross ties	Each	.558	.662	.675	.754		.851
Switch ties	M.B.F.	19.814	26.891	22.555	23.436		27.363
Bridge & building lumber	M.B.F.	32.702	43.272	41.430	43.754		55.008
IRON AND STEEL PRODUCTS:							
Angle bars	Pair	2.482	2.671	2.568	2.584	$2.729	2.856
Axles, freight cars	Index	100.0	104.9	115.6	129.6	141.4	150.4
Axles, locomotive driving	Index	100.0	103.1	114.0	118.1	123.4	130.4
Bar steel	100 lb.	1.630	1.883	2.026	2.167	2.314	2.737
Billets, steel	Gross ton	36.486	36.404	37.066	40.156	41.975	44.408
Boiler tubes	Foot	.157	.164	.166	.167	.167	.168
Bolts, carriage & machine	Index	100.0	123.8	105.9	101.9	109.4	125.7
Brake shoes, driver	Pound	.0269	.0279	.0284	.0292	.0295	.0312
Brake shoes, freight car	Pound	.0161	.0170	.0181	.0200	.0210	.0242
Castings, malleable car	Pound	.0822	.0951	.0984	.0983	.1098	.1271
Castings, steel, car	Pound	.0611	.0796	.0739	.0734	.0881	.1125
Castings, steel, locomotive	Pound	.0626	.0845	.0841	.0829	.0904	.1086
Chains, brake	Index	100.0	138.0	137.9	136.8	142.6	156.0
Couplers	Each	19.146	20.724	22.045	23.109	24.228	27.394
Pig iron	Gross ton	14.452	17.873	19.542	19.830	20.825	24.271
Pipe, cast iron	Net ton	35.472	39.162	42.829	45.781	47.114	49.705
Pipe, steel	Foot	.1189	.1315	.1354	.1281	.1281	.1414
Rail, new	Gross ton	40.026	36.367	36.367	36.379	38.992	42.180
Springs	Pound	.0353	.0423	.0416	.0434	.0456	.0538
Staybolts	Index	100.0	114.3	117.6	117.2	124.9	126.9
Structural steel	Pound	.0251	.0267	.0317	.0346	.0363	.0408
Switches, track	Each	125.796	133.288	135.492	138.505	149.446	165.898
Tank steel	Pound	.0153	.0175	.0186	.0195	.0210	.0231
Tires, locomotive	Index	100.0	99.9	101.1	100.6	105.6	112.2
Tie plates	Net ton	35.821	39.540	39.306	39.951	42.964	46.454
Track bolts	100 lb.	3.486	3.784	3.867	3.998	4.309	4.608
Track frogs	Each	115.371	120.367	122.887	126.387	133.981	155.064
Track spikes	100 lb.	2.232	2.479	2.557	2.764	2.966	3.212
Wire, woven fence	Rod	.3580	.4383	.4360	.4348	.4548	.5200
Nails, wire	Pound	.0203	.0245	.0255	.0219	.0235	.0278
Wheels, cast iron car	Index	100.0	106.2	108.7	113.6	115.1	122.1
Wheels, steel	Each	20.213	20.237	22.511	21.664	22.769	24.863
Miscellaneous iron & steel	Pound	.0228	.0265	.0253	.0267	.0279	.0314
MISCELLANEOUS PRODUCTS:							
Alcohol, denatured	Gal.	0.4066	0.3586	0.4143	0.3661		0.3383
Gravel, ballast	Index	100.0	107.2	105.7	111.1		118.2
Slag, ballast	Index	100.0	103.6	104.7	105.2		111.4
Stone, ballast	Index	100.0	108.7	109.4	108.3		112.3
Belting, leather	Index	100.0	107.0	109.6	110.4		114.9
Belting, rubber	Foot	.2195	.3157	.3084	.3115		.362
Boiler lagging	Index	100.0	100.9	100.8	101.0		91.7
Brick, arch, for locomotives	Each	.1686	.1958	.1974	.1949		.2170
Brooms	Doz.	3.237	4.726	4.326	4.360		4.385
Car oil	Gal.	.1275	.1289	.1302	.1324		.1391
Copper pipe	Pound	.1669	.2113	.2206	.2321		.278
Copper wire	Pound	.1216	.1295	.1353	.1402		.179
Creosote oil	Gal.	.0780	.0930	.1165	.1171		.1262
Oxygen	Cu. ft.	.0090	.0090	.0088	.0087	Not	.0087
Acetylene	Cu. ft.	.0201	.0200	.0200	.0199	reported	.0197
Glass, window	Index	100.0	107.6	100.3	105.1		121.6
Driving journal compound	Pound	.1042	.1057	.0989	.0988		.0990
Hose, air, unmounted	Index	100.0	132.6	143.4	139.8		149.1
Journal bearings	Index	100.0	115.5	129.0	135.5		221.8
Kerosene	Gal.	.0483	.0511	.0534	.0527		.552
Linseed oil	Gal.	.6469	.7127	.7096	.7744		.905
Paint, freight car	Gal.	.7084	.7641	.7723	.7715		.850
Pig copper	Pound	.0651	.0828	.0942	.0991		.1490
Pig lead	Pound	.0362	.0405	.0442	.0457		.615
Pig tin	Pound	.3292	.5209	.4812	.4494		.568
Sand, locomotive	Ton	.5404	.5956	.6009	.5884		.6486
Waste, wiping	Pound	.0435	.0648	.0609	.0649		.0703
White lead	Pound	.0757	.0793	.0825	.0870		.1096
Cement	Bbl.	1.527	1.781	1.749	1.745		1.744
SUMMARY							
Unit Price of All Commodities on Index Basis							
United States	Index	100.0	115.8	117.4	120.4	*123.6	138.0
Eastern Roads	Index	100.0	114.1	115.5	118.2	*122.5	141.5
Southern Roads	Index	100.0	118.2	119.7	123.0	*125.5	140.5
Western Roads	Index	100.0	116.9	118.7	121.9	*124.0	143.0

*Includes prices of forest products and miscellaneous products as of October, 1936.

NOTE: Foregoing based on reports from eighteen railway systems, whose purchases approximate two-thirds of all materials (other than fuel) purchased by all railways of Class I.

to 20 per cent. Copper wire, pig copper, lead and tin and copper pipe declined from 10 to 14 per cent and kerosene declined 1 per cent. In contrast, linseed oil increased 2 per cent and freight car paint 9 per cent. These increases and decreases in price changed the weighted average price of 70 railway materials from an index value of 141.7 in April to 138.0 in June, as compared with 100 in May, 1933.

From the data presented before the I.C.C. in April and June, the *Railway Age* has prepared a chart showing the total increase in the prices of 70 items of material and the increases in coal and fuel oil prices from May, 1933, to October, 1936, and the additional increase from October, 1936, to June, 1937. Compared with an index value of 100 given to all material prices in May, 1933, prices in May, 1937, were 146 for car flooring, 135 for car lining, 230 for car sheeting, 145 for piling, 153 for crossties and 168 for bridge and building lumber. Angle bars in May, 1937, had an index value of 115, freight car axles 150, locomotive axles 130, bar steel 168, boiler tubes 106, machine bolts 126, freight car brake shoes 150, malleable car castings 155, steel car castings



Comparative Increases in the Weighted Average Cost of Railway Materials, May, 1933, to June, 1937, with the Proportionate Increase Since October, 1936

185, couplers 142, springs 152, structural steel 162 and tank steel 150. Corresponding index values in May, 1937, were 129 for tie plates, 132 for track spikes, 145 for woven wire fence and 137 for miscellaneous items of iron and steel.

From May, 1933, to May, 1937, rubber belting increased 65 per cent; copper pipe, 66 per cent; creosote oil, 62 per cent; air hose, 50 per cent; journal bearings, 120 per cent; lead and tin, 70 per cent, and wiping waste,

Average Annual Increase In Material Costs From Increased Prices

	Eastern District (Including Poca. Reg.)	Southern Region	Western District	United States
1937 (estimated)	$232,859,000	$67,490,000	$230,802,000	$531,151,000
Index of prices April, 1937, compared with May, 1933	141.5	140.5	143.0	141.9
Estimated cost of materials at May, 1933, prices	164,565,000	48,036,000	161,400,000	374,001,000
Increase due to price.	68,294,000	19,454,000	69,402,000	157,150,000
Increased cost of coal	32,772,000	9,772,000	4,821,000	47,365,000
Increased cost of fuel oil	345,000	409,000	20,186,000	20,940,000
Grand total increase..	101,411,000	29,635,000	94,409,000	225,455,000

16 per cent. In contrast with these prices the unit prices of denatured alcohol, oxygen, acetylene, driving journal compound were less in May, 1937, than in May, 1933, by from 2 to 15 per cent. Items for which the prices increased the least during the four years were angle bars, boiler tubes, driver brake shoes, steel pipe, new rail, locomotive tires, ballast, car oil, kerosene and cement.

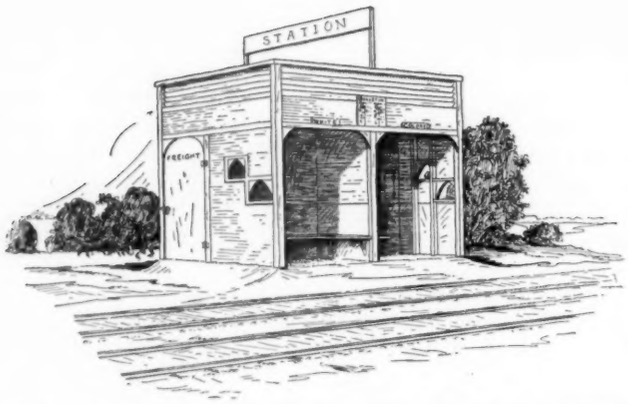
The aggregate effect of these increases in price, together with increases in labor costs, have increased expenses disproportionately with increases in revenues, according to the railroads, and will require reductions in purchases unless revenues can be increased by reasonable additions in freight rates.

Unusual Flag Station Shelters on the G.M. & N.

THE Gulf, Mobile & Northern is now installing shelters at certain of its flag stations which embody a number of unusual features. Only 11 ft. by 13 ft. in plan, these shelters embody separate compartments of equal size on the track side for white and colored patrons and a third compartment at the rear which serves as a freight room. A telephone in a locked cabinet is provided for the use of trainmen. Painted in an attractive color scheme, these shelters are of pleasing appearance and have occasioned much favorable comment on the part of passengers who have used them. Twelve of the shelters are now in service.

Designed for use in a region where the climate is relatively mild the year around, the shelters are entirely open on the track side, and, in lieu of glass windows, the outside wall of each waiting compartment is pierced by two semi-circular openings, at different levels, through which patrons may watch for trains without stepping outside the shelter.

Of frame construction, the shelters are each supported on lengths of second-hand rail under the partitions and the three side walls. These rails, in turn, span between 7-in. by 16-in. by 2-ft. creosoted timber blocks placed at the corners and at other junction points of the rails. The rails are spiked to the sills, and at



Drawing in Perspective Illustrating the Type of Flag Station Shelter Used on the G. M. & N.

corners and other points of intersection they are fastened to each other by second-hand angle bars bent in the middle at right angles and bolted to the rails. For this purpose bolt holes are burned in the rails to coincide with those in the bars.

The exterior walls of each shed are covered with 1-in. by 6-in. siding, while the roof, which slopes toward the rear from a height of 7 ft. 7 in. above the floor at the front (track side), consists of ¾-in. tongue-and-groove sheathing painted with creosote and covered with a layer of rosin paper topped with composition roofing. Surmounting the roof and extending completely around its edge is a parapet embodying 1-in. by 6-in. boards so arranged as to give each panel of the parapet the appearance of a louver. Provided with a coping, consisting of a 2-in. by 8-in. timber, at both the top and bottom, the parapet imparts a pleasing decorative effect and gives the impression of added height.

Each waiting compartment of the shelter is 5 ft. by 7 ft. 3 in. in plan on the interior, the two spaces being separated by a partition. The freight compartment is 10 ft. long and 5 ft. wide on the interior and is provided with a door at one end which is kept locked. The shelter is provided with "black top" floors in both the waiting rooms and the freight room.

The waiting compartment for white patrons is provided with a continuous seat, 16 in. wide, extending along the partition wall and the rear wall, while on the side for colored patrons the seat extends only the length of the partition. These seats are carried on metal brackets which are fastened to the wall studs. The telephone is located in the colored compartment in a cabinet which projects into the freight room, the door of the cabinet being flush with the rear wall of the waiting compartment.

Each of the semi-circular observation openings in the outside walls of the compartments is 12 in. high at the middle, and, since two such openings are provided in each wall, one 3 ft. and the other 4 ft. above the floor level, patrons may view the track from the interior while standing or while seated.

Below a line about 3 ft. above the ground, each shelter is painted black, both inside and out. Above this line the outside walls are white with red trim. The "louvers" in the parapet, as well as the interiors of the compartments above the 3-ft. line, are painted green. The station sign, which is placed above the shelter, as well as the "white," "colored" and "train bulletin" signs embody white letters on a blue background.

We are indebted for the information contained in this article to L. P. O. Exley, chief engineer of the G.M. & N.

Lackawanna Modernizes Buffet-Lounge Car

(*Continued from page 136*)

lighting and air conditioning is 85 to 90 amperes, with a maximum connected load of 107 amperes.

The car is cooled by a Safety Car Heating & Lighting Company's ice-activated system of six tons capacity. The ice bunkers have 2-in. cork insulation and have a maximum capacity of 4,000 lb. The duct for the cooled air runs the full length of the car in the center of the clerestory. The conventional effect of the car ceiling has been materially improved by the use of flat grille panels of the non-directional type running the full length of the car on each side of the clerestory between the air duct and the side of the clerestory. This treatment results in a clean, flat ceiling arrangement. The cooled air is ejected through five-way directional grilles in the side of the main center air duct into the space on each side of the clerestory above the grilles and is distributed into the car through the flat grille-work at a velocity of from 25 to 35 ft. per min. In order to assure satisfactory cooling of the solarium separate air-conditioning ducts are carried directly to the rear end of the car.

Other separate air-conditioning outlets discharge from 40 to 50 cu. ft. per min. of cooled air into the kitchen, and two exhaust fans in the kitchen, having a capacity of 400 cu. ft. per min., pull the warm air and odors from the kitchen as well as from the car interior itself by way of the kitchen. The total circulation of air in the car is 2,200 cu. ft. per min., 600 of which is fresh air taken in through two filters at the end of the car, one on each side. Each of these filters has a maximum capacity of 600 cu. ft. per min., but by means of volume control each filter in actual operation is cut down to 300 cu. ft. per min.

The air-conditioning system is controlled by a Vapor Car Heating Company's control panel. Differential temperature control of cooling is obtained by the use of a Fulton Sylphon control system.

For winter operation the car is equipped with two steam-heating systems—an overhead system operating through the evaporator of the air-conditioning system and the conventional pipe-radiator system at the floor. Each system is controlled by a separate thermostat. The overhead system thermostat has three steps at 68 deg. F., 74 deg. F. and 76 deg. F., and the floor heat thermostat has three steps at 50 deg. F., 70 deg. F. and 73 deg. F., the 50-deg. step being used as a standby protection in cold weather. The air-distribution system on this car has indicated its ability to hold the temperature difference between the two ends of the car to a maximum of 2 deg. F.

The cooling of the kitchen has proved adequate and not a severe drain on the capacity of the system. The uniformity of the air distribution and lighting arrangements have demonstrated their effectiveness. The method of providing a considerable range of adjustment in the separate ducts has made it possible to meet this difficult problem without complaint of any nature.

The car is equipped with a 30-volt, 7½-kw. generator mounted on the body and driven by four Dayton-Roderwald ⅞-in. belts. The battery equipment consists of two sets of 450-amp.hr. lead batteries in parallel, giving a total battery capacity of 900 amp.hrs.

Since the car was put in regular service the patrons have shown appreciation of the comfortable seating arrangements, wide-angle vision through the large windows, cleanliness of the interior, and the general air of comfortable relaxation.

Wood Preservation Up 24 Per Cent in 1936

FOR the third consecutive year the amount of timber given preservative treatment in the United States showed an increase in 1936 and was greater than in any year since 1931, according to figures compiled by R. K. Helphenstine, Jr., Forest Service, United States Department of Agriculture, in co-operation with the American Wood Preservers' Association. As in previous years the railroad industry maintained its position as the principal consumer of treated timber, although the proportion of treated timber used for railroad purposes to the total amount treated showed a slight decline as compared with 1935. Thus the volume of crossties treated constituted 51.2 per cent of the total amount of timber treated, as compared with 58 per cent in 1935, 51 per cent in 1934 and 54 per cent in 1933. Crossties and switch ties combined amounted to 55.1 per cent of the total last year, as compared with 62 per cent in 1935 and 55 per cent in 1934, while piling, bridge timbers, crossing plank, etc., brought the total railway consumption up to approximately 70 per cent.

During 1936 a total of 222,463,994 cu. ft. of wood was given preservative treatment in the United States, an increase of 43,025,024 cu. ft., or 24 per cent, as compared with the quantity treated in 1935. While the amount of timber treated in 1936 was only 62 per cent of that treated during the peak year of 1929, it has been exceeded in only 9 of the 28 consecutive years that these figures have been compiled. All of the eight classes of material treated showed increases last year as compared with 1935. The largest increase, both quantitively and relatively, was shown in poles, the increase in this classification being 19,105,645 cu. ft., or 53 per cent. As a result of this increase the quantity of poles treated jumped from 19.3 per cent of the total amount of wood treated in 1935 to 24.7 per cent last year.

Crossties, with a gain of 10,346,946 cu. ft., or 10 per cent, showed the second largest increase. Other classifications showing substantial increases were construction timbers, with a gain of 4,747,665 cu. ft., or 30 per cent; piles, with an increase of 4,355,826 cu. ft., or 51 per cent; and miscellaneous timber, with a gain of 2,818,981 cu. ft., or 45 per cent.

The number of crossties given preservative treatment last year totaled 37,952,129. As was the case in 1935, oak ties ranked first in the number treated with a total of 16,293,294, or nearly 43 per cent of the total. Southern pine was second with 8,729,659 ties, or 23 per cent, while Douglas fir was third with 4,141,184 ties, or nearly 11 per cent. Other woods represented were lodgepole pine, gum, maple, ponderosa pine, birch, tamarack, beech, hemlock and elm in the order named. All other woods accounted for only 586,777 ties, or 1.55 per cent of the total.

Of the total number of crossties treated in 1936, 21,577,300, or nearly 57 per cent, were treated with creosote, 14,848,645, or 39 per cent, were treated with creosote-petroleum mixtures, 1,220,015, or slightly more than 3 per cent, were subjected to zinc chloride treatment, and 306,169, or less than 1 per cent, were treated with miscellaneous preservatives. These proportions reveal no important direction from the previous year except that they reflect the increasing popularity of creosote-petroleum mixtures, the percentage of ties treated by such mixtures having increased from 35.5 in 1935. Practically all of the crossties treated in 1936 were subjected to the pressure process. Of the total number of crossties treated in 1936, 24,367,161 were adzed and bored before treatment, 1,229,228 were adzed but not bored, 1,458,659 were bored but not adzed, and 10,897,081 were neither bored nor adzed.

A total of 103,229,321 ft. b.m. of switch ties was given preservative treatment in 1936, which represented a gain of 9,191,462 ft. b.m., or 9.8 per cent, as compared with 1935. Here also oak was in first place with respect to the volume treated, with a total of 63,816,410 ft. b.m., or nearly 62 per cent of the total treated. However, as compared with crossties, the positions of Douglas fir and Southern pine were reversed, the former being second with 13,807,565 ft. b.m., or slightly more than 13 per cent, and the latter third with 8,900,203 ft. b.m., or nearly 9 per cent. Maple accounted for 8,022,337 ft. b.m., or nearly 8 per cent, of the total quantity of switch ties treated and gum for 4,482,199 ft. b.m., or slightly more than 4 per cent.

The amount of piling treated in 1936 totaled 19,119,278 lin. ft., equivalent to 12,930,368 cu. ft., which represented an increase of 6,440,671 lin. ft., or 51 per cent as compared with 1935. More than 80 per cent (15,357,926 lin. ft.) of the piling treated last year was of Southern pine, while Douglas fir ranked second with 3,313,562 lin. ft., or about 16 per cent of the total. The balance of 447,612 lin. ft. of piles treated consisted of Norway pine, lodgepole pine, oak and cypress. All piles treated were subjected to pressure processes and all but 720,612 lin. ft. were treated with creosote.

During 1936 the wood-preserving industry consumed 154,712,999 gal. of creosote, an increase of nearly 30,000,000 gal., or 24 per cent as compared with 1936.

Wood Preservation, 1909-1935

Together with consumption of creosote and zinc chloride

Year	Total Material Treated Cu. Ft.	Number of Crossties Treated	Creosote Used, Gal.	Zinc Chloride Used, Lb.
1909	75,946,419	20,693,012	51,426,212	16,215,107
1910	100,074,144	26,155,677	63,266,271	16,802,532
1911	111,524,563	28,394,140	73,027,335	16,359,797
1912	125,931,056	32,394,336	83,666,490	20,751,711
1913	153,613,888	40,260,416	108,378,359	26,466,803
1914	159,582,639	43,846,987	79,334,606	27,212,259
1915	140,858,963	37,085,585	80,859,442	33,269,604
1916	150,522,982	37,469,368	90,404,749	26,746,577
1917	137,338,586	33,459,470	75,541,737	26,444,689
1918	122,612,890	30,609,209	52,776,386	31,101,111
1919	146,060,994	37,567,247	65,556,247	43,483,134
1920	173,309,505	44,987,532	68,757,508	49,717,929
1921	201,643,228	55,383,515	76,513,279	51,375,360
1922	166,620,347	41,316,474	86,321,389	29,868,639
1923	224,375,468	53,610,175	127,417,305	28,830,817
1924	268,583,235	62,632,710	157,305,358	33,208,675
1925	274,474,538	62,563,911	167,642,790	26,378,658
1926	289,322,079	62,654,538	185,733,180	24,777,020
1927	345,685,804	74,231,840	219,778,430	22,162,718
1928	335,920,379	70,114,405	220,478,409	23,524,340
1929	362,009,047	71,023,103	226,374,227	19,848,813
1930	332,318,577	63,267,107	213,904,421	13,921,894
1931	233,334,302	48,611,164	155,437,247	10,323,443
1932	157,418,589	35,045,483	105,671,264	7,669,126
1933	125,955,828	22,696,565	85,180,709	4,991,792
1934	155,105,723	28,459,587	119,049,604	3,222,721
1935	179,438,970	34,503,147	124,747,743	4,080,887
1936	222,463,994	37,952,129	154,712,999	4,127,886

Classes of Material Treated in 1936

Class of Material	Cubic Feet	Per Cent of Total
Crossties	113,856,387	51.2
Switch ties	8,602,445	3.9
Piles	12,930,368	5.8
Poles	54,898,765	24.7
Wood blocks	2,115,243	0.9
Construction timbers	20,430,971	9.2
Crossarms	604,047	0.3
Miscellaneous	9,025,768	4.0
Total	222,463,994	100.0

While the consumption of creosote in 1936 was higher than for any year since 1931 it was still nearly 72,000,000 gal. less than the 226,374,227 gal. that was consumed in 1929, the peak year. Because of the greater demand for creosote the amount imported (30,256,107 gal.) was substantially greater than importations in 1935.

The consumption of zinc chloride (4,127,886 lb.) remained at substantially the same level that has prevailed during the last four years, being only 47,000 lb., or one per cent, greater than the 1935 consumption. The importance of this slight increase is further lessened when it is considered that the 1936 figure includes both zinc chloride and chromated zinc chloride.

Treatment of Miscellaneous Material (Ft. b.m.)

	1936	1935	1934	1933
Lumber	73,694,898	49,705,675	42,879,728	22,200,171
Fence posts	12,266,798	9,564,829	8,462,601	7,385,168
Tie plugs	1,238,326	1,332,533	2,092,863	1,406,979
Crossing plank ...	1,364,035	290,059	135,006	1,272
Car lumber	148,332	227,826	506,552	3,939

The wood preserving industry also consumed 22,624,318 gal. of petroleum in 1936, which represents an increase of 3,418,999 gal., or nearly 18 per cent, as compared with the previous year. In fact, the consumption of petroleum for timber-treating purposes was greater last year than for any year since 1930 and has been exceeded in only 4 of the 13 years during which statistics on its use have been compiled. The consumption of miscellaneous salts increased from 966,825 lb. in 1935 to 1,804,976 lb. in 1936; while the use of miscellaneous liquid preservatives jumped from 2,741 gal. to 4,485 gal.

In 1936 there were in existence in the United States 217 wood preserving plants, an increase of 3 as compared with the previous year. Of this number 200 were in active operation and 17 were idle. During the year 5 new plants were built, of which 2 were plants of the pressure type and 3 were non-pressure (open-tank) plants. Three plants were abandoned during the year, including one non-pressure and two pressure plants. Of the total number of plants in existence, 163 were commercial plants, which treat wood for sale or by contract, 24 were owned or operated for railroads and 30 belonged to public utilities, mining companies, or the federal government.

What About The Challenger?

(*Continued from page 132*)

registered nurse is in attendance at the ticket office. To assure prompt service, 11 ticket sellers are on duty, each provided with a double-breasted coat and a tie of the same color. A "floor-walker" is provided to give information outside the counter. In general, every facility is provided for timid and unaccustomed travelers from the time they enter the ticket office until they reach their destination.

The U. P. staff coming in contact with Challenger passengers is expected to be not merely neutrally polite, but actually friendly and helpful. Constant supervision, aided by the great success of these trains and the consequent pride taken in them by the U. P. employees, has brought about this desired result. In short, the Challenger service has convinced the U. P. that the passenger is not a captious, peevish individual who cannot be pleased, but that he responds to courteous treatment and modern sales and service ideas quite as readily and as pleasantly as a customer in any other line of business.

Odds and Ends . . .

Men's Fashion Note

Adding a further note of attractiveness and modernization to its dining-car service, the Pennsylvania recently provided the stewards and waiters on the eastbound and westbound sections of The Broadway Limited with entirely new types of wearing apparel. The conventional long white jacket and white apron, for many years the standard uniform for dining-car waiters, has been abandoned. The new ensemble for Broadway Limited waiters includes a short jacket of beige color, trimmed with maroon, trousers of maroon with a narrow gold stripe, white shirt, wing collar and maroon bow tie. Dining-car stewards on the Broadway Limited no longer wear the standard jacket and trousers of blue serge, with white vest. Their outfit now comprises a double-breasted dinner jacket with heavy grosgrain lapel, white shirt, wing collar and black bow tie. The swanky appearance of the Broadway Limited dining-car employees is the subject of much favorable comment on the part of patrons. With the addition of this pleasing change in attire of stewards and waiters, the atmosphere of the dining car looks more than ever like the de luxe dining room in a modern hotel.

Former Chinese Passenger Agent Dies

Word was recently received by W. S. Basinger, passenger traffic manager, Union Pacific, of the death in Hong Kong of Hong Sling, 81, who had been Chinese passenger agent for the U. P. for many years until his retirement in 1918.

When he was buried, his Union Pacific Old-Timers club button was pinned on him, "because he was so proud of it," wrote his son, Harry Hong Sling, head of his own importing company in Hong Kong.

As an immigrant of 18, Hong Sling went to work for the Union Pacific as a section laborer in 1874 at Ogden. In 1889 he left the company to go into business, but in 1893 re-entered the service as Chinese passenger agent, a position created for him, at Chicago, and which position he continued even after his return to China until his retirement. He lived in Chicago from 1893 to 1914, when he returned to Hong Kong. He was one of the most influential Chinese in America. His two sons and daughter all received college educations in this country.

Although retired on pension by the Union Pacific in 1918 at the age of 62, with a record of 41 years employment, Hong Sling continued his business activity until he was 75 years old. In Hong Kong he became a noted financier and philanthropist, and a director in many business fields as well as in numerous civic and charitable institutions.

Caboose 18058

Visitors to the Chicago world's fair and to the Texas Centennial will remember Chicago, Rock Island & Pacific Caboose 18058, and its genial "chairman," Conductor Jim Bullard. This caboose attained considerable fame as a result of the highly successful efforts of its crew in soliciting traffic, and was on display in the Rock Island exhibit at both fairs as a result. New honors have now come to the old caboose, as a result of the charitable interest its members have taken in the Future Farmer clubs of the Near East Foundation in Greece. In grateful appreciation, the clubs have planted a tree in honor of Caboose 18058 in the railway station grounds at Chrysos, Greece. Quite a celebration was had at the planting, for which the state railways of Greece ran special trains and provided speakers.

Lilliputian Penmanship

H. J. Eckhardt, of the land and tax department of the Illinois Central, has good eyes and a steady hand. He has attracted much attention by his feat of writing the Lord's Prayer 11½ times on one side of a sheet of paper the size of an ordinary postage stamp. To do this, the handwriting has to be so tiny as to appear almost as a series of dots to the naked eye, but it can be read easily with the aid of a microscope.

NEWS

P.W.A. Calls Self "New Casey Jones"

Says its own railroad records "put to shame" exploits of famous engineer

The legendary exploits of Casey Jones "would have been put to shame" in competition with railroad records piled up when construction materials were hauled to the 25,123 Public Works Administration projects in virtually every United States community, according to a statement issued by the P.W.A. on July 26. The statement calls the P.W.A. "a new Casey Jones," who four years ago "climbed into the cab of the nation's railroads, hooked onto his train, pulled back on the throttle and rolled out of the yards to smash railroad records in all directions." The P.W.A. traffic, the statement adds, required the equivalent of a train 30,417 miles long, and it created 105 million man-hours of railroad employment in three years.

The statement follows a report by the Bureau of Labor Statistics to Public Works Administrator Harold L. Ickes on the results of the former's "measurement of rail transportation of materials originating because of P.W.A. construction." In this study, the P.W.A. explains, railroad records were checked against material orders, and a detailed study of freight movements was undertaken. Statistics were obtained from the Bureau of Railway Economics, A.A.R., and data available in files of the Interstate Commerce Commission and the former Federal Co-ordinator of Transportation were reviewed. Construction materials going to P.W.A. projects "were traced from source to delivery, and a thorough analysis made of the equipment necessary to transport them."

On this basis the B. L. S. reported that the transportation of P.W.A. materials created the 105 million man-hours of railroad labor mentioned above; it involved the use of 3,650,000 freight cars and created 620 million train-miles. A total of 172 million tons of materials was moved, and 0.608 man-hours of work per ton of freight was created.

A Bureau of Railway Economics analysis of the B. L. S. findings is cited to indicate "the vastness" of this railroad activity. The B. R. E. said, among other comparisons, that the figures determined by the B. L. S. meant that the P.W.A. traffic was greater than the commercial tonnage passing through the Panama Canal in the seven years 1930 to 1936; it was the equivalent of 1,000 freight cars traveling around the world at the equator 25 times; the cars used is the equivalent of loading twice during the 1933-1936 period all freight cars owned by Class I railroads; the railroad employment created (not including that of loading and unloading) was the equivalent of a full year's work for 45,833 men, using railroad employment averages.

The B. L. S. found that $1,592,000,000 worth of material orders had been placed for P.W.A. projects. The average haul for these projects ranged from 72.1 miles for sand and gravel (the shortest distance) to 768.1 miles for lumber (the longest). Cast-iron pipe and fittings moved an average of 592.5 miles and iron and steel pipe moved the third longest, 513.8 miles. Finished iron and steel products had an average haul of 342.4 miles, while building tile moved 331.6 miles.

Enthusiasts' Summer Meeting

The Railroad Enthusiasts, Inc., Philadelphia division, will hold its next meeting on Friday, August 6, in the board room of Reading terminal, Philadelphia, Pa. The program will comprise sound motion pictures illustrating the latest products of the Baldwin and General Electric works.

Express Agency Reports Gains

Figures recently compiled show that the Railway Express Agency carried 11,579,683 shipments for the month of May, an increase of 636,282, or 5.81 per cent, over the corresponding period in 1936. Although June figures have not as yet been tabulated, preliminary data indicate a satisfactory rise over the corresponding month of 1936. This constitutes the 42nd consecutive month that has showed an increase over the previous, since the agency started its "More Business Plan" in 1933.

Eastman Confirmed by Senate

The Senate on July 26 confirmed President Roosevelt's nomination of Interstate Commerce Commissioner Joseph B. Eastman for a new term, expiring December 31, 1943. The nomination which was sent to the Senate on July 9 was reported favorably by the committee on interstate commerce on July 23.

Mr. Eastman's previous term, as well as that of Commissioner Hugh M. Tate, expired at the close of last year, but both have continued to serve under the recent amendment to the interstate commerce act which provides that members may serve until their successors have qualified for office. The President has not yet acted with respect to Commissioner Tate.

Farmers to Pay Labor's Wage Rise

If industry's labor gets bigger share, then incomes of all others must decline

"The present movement by the railway labor unions for large advances in wages is thus far more peaceable, but it raises the same fundamental questions as the C. I. O. movement in other industries," said Samuel O. Dunn, chairman of the Simmons-Boardman Publishing Corporation and editor of *Railway Age*, in an address at Fargo, N. D., on July 28, before the Northwest Shippers' Advisory Board. "One of these questions is whether we should have a radical change in the division of the total national income rather than a large increase in the amount of it. Another of them is much less whether we should have a radical change in the division of the national income between capital and labor than whether we should have a radical change in the division of it between the labor employed in transportation and industry, on the one hand, and the farmers and the rest of the people, on the other hand. Another is whether we are to have class government by and for the supposed benefit of what is called 'labor,' or government by and for the equal benefit of all the people.

"We actually doubled production, and thereby doubled the real national income, in this country in the ten years following the depression of the nineties. We could do so again during the next decade; but we did not then have so much labor and political leadership telling 'labor' and other people that redistribution, not production; leisure, not work; spending, not saving; taxing and wasting capital, rather than investing it wisely and profitably, are the sovereign means of raising the living standards of the masses.

"What is called 'labor' is only a minority of those who do the work that produces our national income. About 40 per cent of those who actually work live on farms and in rural towns of less than 2,500 population; about another 20 per cent are large and small business men, professional men, 'white collar' employes, and domestic servants; and about 40 per cent are employed in industry and transportation. It is for this last-mentioned 40 per cent that demands are being made for a larger share of the national income. It is to be gained by advances in their hourly wages and reductions of their working hours. These

(*Continued on page 149*)

Indian Rail Probe Hits Staff Cuts

British committee report deplores executive cuts and shies from state control

Criticism of present practices on the railways of India and detailed suggestions for their betterment make up the 300-page report of the Indian Railway Inquiry Committee, published in India on June 28 and abstracted in the July 2 issue of the Railway Gazette (London). Given authority by the Government of India Act of 1935, which instituted a new financial relationship between the central government and the provinces, the committee chairman, Sir Ralph Wedgewood, chief general manager of the London & North Eastern (Great Britain) and its members, W. A. Stanier, chief mechanical engineer of the London, Midland & Scottish (Great Britain), and H. Cheadle, chief traffic manager of the South African Railways, base their recommendations upon personal investigation of the rail properties since appointment on October 20, 1936, and upon financial studies covering the period between 1924 and 1936.

As a result of its financial survey, the committee is able to report a "substantial advance in efficiency and economy of management since the depression began in 1930 and asserts that during the slump period and the years of partial recovery following, the Indian system showed more favorable results than the majority of British and American roads. Suggestions for even greater economy in roadway and equipment expenditures follow.

Touching upon the economy theme as it affects staff and salary reduction, the committee modifies the direction of its proposals. Singling out the severe reductions in executive positions and pay made in the interests of economy and deploring the extremes to which the practice was carried, the committee states: "While we are satisfied that the economy campaign has been conducted with credit to those concerned, we feel that in certain directions it has been carried so far as to seriously impair the efficiency of the organization. This, in our opinion, is particularly the case with the higher administrative positions." Pursuing this theme further, the committee claims that excessive reduction of staff "has seriously impaired the personal intercourse necessary between the Railway Board, railways and the trading community."

In reference to employe problems, the report recommends the extension of staff schools as a key to promotion difficulties and urges closer relations with the British Institute of Transport and the Railway Research Bureau.

Dealing with the question of further state control of Indian roads, the committee states that as the condition of the government now stands, continuation of the non-state carriers as privately owned and operated is desirable, presenting as basis for the argument the fact that present methods of state operation "tend to cramp initiative, and to impose complicated regulations." While it assumes that it is the policy of the central government to ultimately assume management of all class I roads, the committee does not recommend such a course "on present experience" and declares: "The history of state management in India is not encouraging, and it seems clear that present methods are unsatisfactory. . . . If, therefore, the only choice available lay between a continuance of private management and an extension of state management on existing lines, we should strongly recommend the former alternative."

Specifically, the report makes mention of the complications of state administration given above and further observes that "the inspection and supervision which is thought to be necessary in connection with the collection and expenditure of public money divert the attention of officers from work of greater importance and impose a heavy burden upon the finances of the railways." As alternative for government management, the committee suggests the creation of privately managed companies, with "boards of management" resident in India to abolish the evils of absentee ownership.

Tariffs and Schedules of Motor Carriers of Passengers

The Interstate Commerce Commission has issued Tariff Circular MP No. 3 setting forth regulations to govern the construction and filing of common carrier passenger fare publications, contract carrier schedules of minimum fares or charges and express rate and classification publications of common and contract carriers of passengers. The regulations become effective July 23, and the circular cancels Tariff Circular MP No. 2.

Drought Relief Rates

The Interstate Commerce Commission has authorized the Great Northern and the Minneapolis, St. Paul & Sault Ste. Marie to establish reduced rates on hay, feed and other forages from points on their lines in Iowa, Minnesota, Montana, North Dakota and South Dakota, and Superior, Wis., to drought-stricken areas of Montana and North Dakota. The relief rates are to be 66⅔ per cent of the regular rates on the commodities involved.

Educator, Former L. V. Solicitor, Dies

Henry S. Drinker, who spent many years with the engineering and legal departments of the Lehigh Valley before becoming president of Lehigh University, died on July 27 at his summer home in Beach Haven, N. J., at the age of 87. Born in Hong Kong, China, and graduated as mining engineer from Lehigh in 1871, he entered the service of the Lehigh Valley's engineering department and after one year's service was placed in charge of major extension work, including the building of the Musconetcong tunnel. In 1878, after admittance to the bar and a few months preliminary work, Mr. Drinker became general solicitor of the road, which position he held until 1905, the year of his election to Lehigh University's presidency.

State Takes Over National of Mexico

President Cardenas uses authority under expropriation decree

On June 24, by presidential decree, the National of Mexico was completely nationalized and taken over by the state. A new autonomous department of railroads was immediately created, consisting of Efrain Buenrostro, under-secretary of the treasury, A. Beteta, under-secretary of foreign relations, S. J. Romero, assistant to the executive vice-president of the National of Mexico, and Juan Gutierrez, general secretary of the union of railroad employees. It is stated that the new department "will be operated under the direct supervision of the federal government, although with sufficient independence and authority to execute its proper functions."

The government is the majority stockholder in the railway system at present, and, as to the private individuals who are the minority stockholders, the decree states: "The secretariat of communications and public works will proceed in accordance with the expropriation law (dated November 23, 1936) and with the aid of the treasury department, to determine the amount of indemnity chargeable to the federal government."

In explaining his action, President Lazaro Cardenas states: "The National of Mexico is organized and operated by a firm of capitalists with a lucrative purpose in mind, although, for reasons well known to the public, for some time, this firm has been operating on a basis that has created an inefficiency in its management, which has not only reached a chronic stage, but has served as an impediment to the technical progress of the lines, this being detrimental not only to the national economy, but to the public's welfare as well."

On July 3, President Cardenas presented his case to the national Congress with the following statement:

"It was desired to reach an agreement and understanding with the shareholders before taking the decisive step of nationalization, but they stated they would not enter into any discussion of the matter until they knew definitely as to how the government would meet payment of said stock. On the other hand, whenever the government considered taking steps toward improving the service of the National of Mexico, the board of directors residing in New York had to be consulted, and this led to delays and obstruction in carrying out the plans of improvement; therefore, the government was forced to take the measure of nationalizing the railroads.

"As regards the payment of the stock in the hands of foreign shareholders, the treasury department is already studying carefully the easiest method in which said payments can be met without incurring an embarrassing situation for the government. When these details are fully studied, the plan will be turned over to Congress to study the question further, and in order that suggestions or modifications may be

made as it may be considered advisable."

At a meeting with representatives of the railway employees, President Cardenas assured them that: "The personnel of the union of railway employees will be utilized in the formation of the new autonomous department of railroads, and in the formation of rules and regulations governing it. The civil service law will be in no way affect the railroad employees, who will continue under their respective contracts."

The step was hailed with delight by the railway employees, who presented the following resolution to the President:

"The union of railway employees approves in every detail your measure for expropriating the railways. This approval ranks high among the revolutionary sectors of the country and is especially keen among the railway employees, who believe that once the nation gains complete control over properties that were once operated by private firms, it will mark an opportune moment to carry out the revolutionary program which the government has laid out, in accordance with its "Six Year Plan," which tends to socialize all activities of economical production, as the only means of doing away with and transforming the existing system of capital rule. Fully able to cooperate in this outstanding social measure, the employees of the National of Mexico are in readiness to take upon themselves the administration of said lines, in accordance with the interview had with you."

President Cardenas accepted their announcement with thanks, but warned them, as follows:

"It is not the purpose to turn the property of the railways over to the employees, as it will continue to belong to the nation, which in turn only condescends to let the employees operate the lines."

Date for Exceptions to Motor Hours-of-Service Report

The Interstate Commerce Commission has extended to August 25 the date for the filing of exceptions to the recommended order of Examiner R. W. Snow in the matter of maximum hours of service for motor carriers. Examiner Snow's proposed report, outlined in the *Railway Age* of July 24, recommended the adoption of regulations which would fix as maxima, for bus and truck drivers, a 60-hour week or not more than 70 hours in any period of eight consecutive days, with limits of 15 hours "on duty" and 12 hours "at work" in any period of 24 consecutive hours.

The proposed report was served on July 15 so that the normal 25-day period for the filing of exceptions would have expired August 9. Replies to exceptions must be filed on or before September 10.

Relief-Rates Amendment Passes Senate

The Senate on July 22 passed the bill (S.2619) which is designed to facilitate the offering by railroads of reduced rates to meet such emergencies as drought and floods. It would amend section 22 of the Interstate Commerce Act so as to provide that, after the Interstate Commerce Commission has defined the period, area and class of persons entitled to relief rates, no carrier shall be deemed to have violated the act's provisions with respect to preference or discrimination "by reason of the fact that such carrier extends such rates only to the class or classes of persons defined in the order of the commission authorizing such reduced rates."

The bill is understood to have the approval of the Interstate Commerce Commission and the Association of American Railroads.

Commemorate Anniversary of Railway Postoffice Service

Ceremonies commemorating the seventy-fifth anniversary of railway postoffice service were held in the Chicago Union Station by the Chicago, Burlington & Quincy on July 28. With the first railway postal car to be placed in service on the Hannibal & St. Joseph, now a part of the Chicago, Burlington & Quincy, as a background, several postal and industrial leaders paid tribute to the development of the service which has become such an important factor in the expansion of the country. Among the speakers were Ernest Kruetgen, postmaster at Chicago, Kasson Miller, assistant superintendent of railway mail service at Chicago, C. L. Rice, president of the Chicago Association of Commerce, and E. Flynn, executive vice-president and A. Cotsworth, Jr., passenger traffic manager of the Chicago, Burlington & Quincy.

Status of Crossing Program

The latest statement showing the status of the federal government works program grade crossing projects reveals that as of June 30 work had been completed on a total of 1,152 new separations, 206 reconstruction jobs and 217 projects involving grade crossing protection by signals or otherwise. This completed work cost an estimated $86,354,351, of which $84,836,616 was supplied from works program funds.

Projects under construction on June 30 were estimated to cost a total of $90,217,477, of which the works program funds will supply $87,223,677; these include 698 separations, 123 reconstruction jobs and 373 protection projects. Projects approved for construction include 136 separations, 28 reconstruction jobs and 360 protection projects, the estimated total cost being $16,345,864, of which works program funds will supply $15,210,179.

Ex Parte 115's Transcontinental-Mountain-Pacific Rates

The Interstate Commerce Commission has postponed from September 8 to September 28 the further hearing, to be held at Washington, D. C., on that part of the Ex Parte 115 rate-increase case which involves transcontinental - mountain - Pacfic rates. Also, the oral arguments in this proceeding have been postponed from September 9 to September 30.

Railroad briefs on this phase of Ex Parte 115 were filed on June 15, while the time for filing protestants' briefs is now extended to August 30. Following the oral argument the carriers may file, not later than October 7, briefs on new matter, and replies to briefs of protestants. Also, up to the same date, protestants may file briefs confined to new evidence adduced at the further hearing of September 28. This phase of Ex Parte 115 will then stand submitted.

Wilgus Dies at 63

Herbert Sedgwick Wilgus, who has acted for the New York Public Service Commission as grade crossing engineer since 1932, died on July 7, in Delaware City, Del., at the age of 63. While he spent his latter years in consulting work, Mr. Wilgus devoted the early part of his life to the service of several railroads. Immediately upon graduation from Cornell University in 1901, he entered the office of the engineer, maintenance of way, of the Big Four at Springfield, Ohio, after having spent several of his summer vacations as rodman with the Terminal Railroad of Buffalo. In 1902, he became transitman with the Pennsylvania at Alleghany, Pa., and was promoted in 1902 to engineer. From 1903 to 1906 he served as engineer of maintenance of way & structures with the Brooklyn Rapid Transit, whence he transferred to the same post with the Pittsburg, Shawmut & Northern.

Average Per Diem Suspended

The board of directors of the Association of American Railroads has suspended the average per diem plan until December 31, 1937, it was learned last week. The action, taken at the board's June meeting, permits carriers who have found the plan mutually satisfactory to continue it as between themselves during the suspension period.

Savings during 1935 and 1936 under the plan, which became effective May 1, 1935, were given as $34,290,270 by W. C. Kendall, chairman of the A.A.R. Car Service division in a report presented at the annual meeting of the Operating-Transportation division, A.A.R., at Chicago on May 19 and 20. It is understood, however, that some of the western roads objected to the application of the plan in times of tight car supply, holding that the regular $1 per diem rate would stimulate the return of cars to home roads.

B. & M. Reports Contest Winners

Winners of the "sales idea contest" which the Boston & Maine offered to its employees last spring are announced in the current issue of the road's employees' magazine. C. H. Evans, an engineman on the New Hampshire division, was awarded the first prize of $300, and Miss M. E. Hinds of the Boston & Maine ediphone bureau received the second prize of $100. A total of 7,000 entries were submitted in the contest, from which 374 employee efforts were judged after preliminary eliminations. The judges were Homer Clark, associate advertising manager of Lever Brothers; A. C. Bond, advertising manager of the United Drug Company, and Allyn McIntire, vice-president of the Pepperell Manufacturing Company.

The contest, details of which were outlined in the *Railway Age* for April 24, page 735, called for the submission of as many "sales ideas" as possible from each employee, each submission to be accompanied by a "new rider card" containing evi-

dence of interviews with three persons not regularly rail patrons. Mr. Evans, who received the unanimous approval of the judges, through his sales talks given in connection with new rider cars, succeeded in persuading at least five commuters in the Boston, Mass., area to become regular Boston & Maine patrons. His method, he declares, consisted in approaching passengers awaiting highway vehicles paralleling the railroad and apprising them of the advantages of rail transport. In most instances those interviewed were not aware of the reduction in rates or of the advances in speeds, frequency of schedules, or increased comforts for coach passengers in air conditioning and modern car appointments.

Booklet Describes N. & W. Cities for Passengers

To acquaint the traveler with the territory through which he is passing, the Norfolk & Western has published a unique booklet of 64 pages which carries paragraphic sketches of every town and city along its line. The booklet, entitled "Along the Right of Way," will be given to passengers buying through tickets and the 25,000 copies published will be placed on lounge cars and be distributed by soliciting passenger agents. The publication describes communities of 100 or more inhabitants and gives statistical facts of interest about each. They are arranged according to the five main divisions of the railroad, from east to west. The front cover of the publication is printed in two colors and illustrated with a scene of the "Pocahontas" passing the Palisades along the New river in Virginia.

Motor Carrier Operations in Metropolitan Areas

Senator Moore of New Jersey has introduced in the Senate a bill (S. 2818) to amend the motor carrier act so as to broaden the areas embraced within municipal zones wherein motor carrier operations are exempt from federal regulation except as to hours of service of drivers and safety of operation and standards of equipment. The Interstate Commerce Commission has recently defined municipal zones for New York, Chicago and St. Louis, Mo., within narrower limits than had been urged by various local interests.

Senator Moore's bill would add to the motor carrier act's definitions the term "metropolitan district" which would mean any district so designated in the 1930 census. It would then apply the present exemptions enjoyed by carriers in municipal zones to those in "metropolitan districts"; and remove the Interstate Commerce Commission's discretionary authority to apply additional regulation to such carriers by eliminating from the act's section relating thereto the words: "unless and to the extent that the commission shall from time to time find that such application is necessary to carry out the policy of Congress. . . ."

Allotments for Rivers and Harbors

Allotments totaling $25,961,230 for rivers and harbors projects, provided for in the recently-enacted law carrying appropriations for the non-military activities of the War Department, have been approved by the Secretary of War. The largest allotment—$2,218,470—is for lock and dam construction on the Ohio river, which also gets $1,009,530 for open channel work. For work on the Mississippi river between the Missouri river and Minneapolis, Minn., $1,649,000 is provided, while $975,000 is allotted to the section between the Ohio and the Missouri, and $400,000 for work in the southwest and south passes in Louisiana.

The section of the Missouri river from its mouth to Kansas City is allotted $1,019,000, and $136,000 goes to the section between Kansas City and Sioux City. Other allotments include: Delaware river, $800,000; Illinois waterway, $681,000; Columbia and Lower Williamette rivers, $500,000; Monongahela river, $457,950; St. Mary's river, $460,000; Black Warrior, Warrior, and Tombigbee rivers, $436,000.

Telegraphers Seek to Restrain Use of Telephones by Crews

Having as his objective a general restriction of the use of telephones by train crews for the reception of train orders and clearances, messages, etc., E. J. Manion, president of the Order of Railroad Telegraphers, has sent a circular letter to all general chairmen of the organization, which is reprinted in the current issue of "The Railroad Telegrapher," official organ of the union. This message comes as a "follow up" of the agreement with the Illinois Central on July 2 made by the four train service brotherhoods and the telegraphers which provides that train crews will not be required or permitted to call dispatchers or accept train orders through the medium of line telephones except in cases of emergency or unusual delay.

The presidential letter, referring to the Illinois Central pact as principle and precedent, urges that every general committee of the union seek the adoption of a similar rule on its particular road, in co-operation with the other four operating brotherhoods and the Train Dispatchers' Association whenever these latter organizations have existing working agreements with the managements. The circular makes it known that the headquarters of the telegraphers' group possesses a report concerning practices on individuals roads, compiled from data furnished by the various general chairmen. This report, it is asserted, is complete on a large number of roads and will be available shortly.

Another Little Girl Provides Publicity

Another little girl, this time on the Chicago & Eastern Illinois, has become a central figure in railroad publicity. Mabel Dickson, 11 years old, lives beside the C. & E. I. tracks in Chicago. For more than two years an engineman of a freight train had noticed the little girl lying on her cot recuperating from an illness. Going into his garden, he picked flowers, carefully packed them in wet moss in a big box and on his next trip past her home, he tossed the box of flowers into her yard. Upon his next trip he saw a message "Thank You" written in chalk on a blackboard which the little girl was holding up for him to read. A neighborhood newspaper, hearing of the incident, wrote a story telling how happy the girl had been made by the gift. When the story came to the attention of the railroad, a search was made for the unknown engineman, Louis Garry, and on July 27 he was directed to stop his train and visit the little girl.

Railway Is Motor Carrier in Trucking in Lieu of Train Service

The parent railway is the common carrier by motor vehicle as to operations in lieu of line-haul rail service conducted by a wholly-owned subsidiary, and the subsidiary is "a mere agent of the rail carrier without an independent carrier status, either common or contract," according to the findings of Examiner W. T. Croft in a proposed report to the Interstate Commerce Commission on a motor carrier act application of the Atchison, Topeka & Santa Fe and the Santa Fe Transportation Company.

The original application was filed by the latter, but the railway subsequently filed an alternative application for the desired certificate, authorizing the continuance of highway operations over California routes between Fresno and Cutler, and between Oceanside and Fallbrook. The examiner, after an extended discussion of the agency of one carrier for another and the effect of the agency on the carrier or non carrier status of the agent, reaches his recommended finding that the railway application should be granted.

To Conduct Research on Air-Conditioning Filters

The Association of American Railroads, through the Division of Equipment Research, will conduct, this summer, a research of air-conditioning filters now in use on the railroads of the United States and Canada. The tests will be made in the engineering experimental laboratories of the University of Minnesota in accordance with the code adopted by the American Society of Heating and Ventilating Engineers. In addition to the laboratory tests, road tests will be made under actual operating conditions. The results of both road and laboratory tests will then be correlated.

It is felt that the dust specified by the code for testing purposes does not simulate the type of dust encountered in railroad service. In order, therefore, to develop a dust for testing purposes which is comparable to that actually encountered, samples are being obtained for analyzing purposes. The results of this research will be made available to the railroads before the next air-conditioning season.

Second New Haven Picture Train Features Art Class

The second "picture train" of the New Haven will run on Sunday, August 1, and it is expected that a large number of devotees of the camera, both candid and conventional, will be on board. As a special feature for artists and sketchers who join the party, there will be held a sketch class, presided over by Julius Delbos, famous

American water colorist. The class, after organization enroute, will leave the train at Sheffield, Mass., with Mr. Delbos, who has selected a location suitable for sketching and instruction.

The train will leave Grand Central terminal, New York, at 8:55 a.m. (daylight saving time), will arrive at South Lee, Mass., on the Pittsfield line, at 12:25 p.m. for a two-hour stop-over, and is due at Stockbridge at 2:30 p.m., where a two-hour and 15-min. stay will be made. At Sheffield a final stop-over of two hours is planned. As before, the consist comprises air-conditioned coaches, a dining car and a dark room for changing films. Bicycles will be carried free in the baggage car for those who wish to ride two favorite hobbies on the excursion.

Accident Statistics for April

The Interstate Commerce Commission's completed statistics of steam railway accidents for the month of April, 1937, now in preparation for the printer, will show:

Item	Month of April 1937	Month of April 1936	4 months ended with April 1937	4 months ended with April 1936
Number of train accidents	721	588	3,226	3,105
Number of casualties in train, train-service and non-train accidents:				
Trespassers:				
Killed	173	199	670	693
Injured	220	223	676	707
Passengers on trains:				
(a) In train accidents:*				
Killed	....	2	1	4
Injured	25	26	163	180
(b) In train-service accidents:				
Killed	2	....	3	....
Injured	149	126	592	519
Travelers not on trains:				
Killed	2	1	7	7
Injured	70	51	281	267
Employees on duty:				
Killed	55	45	259	237
Injured	1,926	1,545	8,006	7,089
All other nontrespassers:†				
Killed	137	140	670	555
Injured	503	475	2,479	2,326
Total—All classes of persons:				
Killed	369	387	1,610	1,496
Injured	2,893	2,446	12,197	11,088

* Train accidents are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

† Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

Number of accidents	307	308	1,606	1,427
Persons:				
Killed	125	127	620	523
Injured	358	365	1,855	1,717

Installations Up; Freight Cars on Order Highest Since 1924

Class I railroads in the first six months this year installed 34,187 new freight cars, the largest number for any corresponding period since 1930, when 49,258 were installed, according to the Association of American Railroads. In the same period last year 11,604 new freight cars were put in service, and 1,868 in the same period two years ago. Of the new freight cars installed, coal cars totaled 17,529; box cars, including both plain and automobile, 13,275; refrigerator cars, 2,863; flat cars, 490; stock cars, 28; and miscellaneous cars, two.

In the first half of this year, 166 new steam locomotives and 20 new electric and Diesel locomotives were installed, the number of new steam locomotives being greater than for any corresponding period since 1930. In the first half of 1936, 18 new steam locomotives and 11 new electric and Diesel lecomotives were put in service, and 25 steam locomotives and 81 electric locomotives were put in service in the same period in 1935.

New freight cars on order on July 1, this year, totaled 42,624, the greatest number for any corresponding date since 1924, at which time there were 60,315. On July 1, last year, Class I railroads had 28,089 new freight cars on order, and on July 1, 1935, there were 2,428. New steam locomotives on order on July 1, this year, totaled 301 compared with 67 on the same date one year ago, and six on the same date two years ago. New electric and Diesel locomotives on order on July 1, this year, totaled 33 compared with 23 last year and 22 two years ago.

New freight cars and locomotives leased or otherwise acquired are not included in these figures.

Fall River Line to be Abandoned

The New York, New Haven & Hartford, through its subsidiary corporation, the New England Steamship Company, was granted permission on July 27 to abandon operation of its Fall River and New Haven boat lines by Judge C. C. Hincks, in the United States District Court, sitting in New Haven, Conn. The evidence leading to granting of the road's petition for abandonment was that presented by F. J. Wall, vice-president in charge of traffic, the sole witness for the New Haven trustees, who testified that the deficit of the Fall River Line alone amounted to more than $500,000 at the end of 1936, that the line had never really paid since the rise of bus and private car competition, and that its future earning power is most doubtful.

The court's decision was rendered in disregard of objections made by civic leaders of Fall River, Mass., and Newport, R. I., the two communities that will be most affected by abandonment of the Fall River Line. Permission for the sale of the nine boats operated on the two lines to be ended was withheld, pending further decisions by trustees of the road.

The Fall River Line constitutes a daily freight and passenger service between New York, Newport and Fall River, while the New Haven boat service is limited to freight carriage between that point and New York. The former line, which celebrated its 90th birthday this year, enjoys a national reputation and tradition.

Carriers Intervene in Scott Brothers Trucking Case

The Southern rail carriers have petitioned the Interstate Commerce Commission for leave to intervene in the Scott Brothers Case in which the commission, speaking through Division 5, held that railroad pick-up and delivery service was subject to the Motor Carrier Act. The petition of the Southern carriers contends that the commission erred in classifying a concern like Scott Brothers, which does pick-up and delivery work under contract for the Pennsylvania and Long Island, as a motor carrier. Rather, they hold, the operation should be classified as a rail operation and should come under Part I of the Interstate Commerce Act.

The petition goes on to say that the position of the Southern lines is similar to that of the Western lines who have asked for a reargument of the entire case before the full commission. They say that if their petition is granted, they will immediately make the same request of the commission.

The petition states that "It has been and is the view of your petitioners that these truckmen, inasmuch as they neither issue bills of lading nor collect freight charges as a carrier, but act wholly under contract to the line-haul carrier as an agency or instrumentality to begin or complete the service which the line-haul carrier by tariff has undertaken to perform, are not required to obtain certificates of public convenience and necessity, and in most instances have not done so. It is also the view of your petitioners that the entire pick-up and delivery service performed by railroads within terminal areas is completely under Part I of the Interstate Commerce Act."

The petition of the Western carriers commends the reasoning of Commissioner Eastman, who dissented in the Scott Brothers case. The Western carriers also accused the Division of legislating in a case where they believe there should only have been a construction of a statute. "Mr. Eastman's comments," says the brief of the Western roads, "are undoubtedly true, but a further answer to the majority report of Division 5 is that the basis of such report constitutes legislation in a case where they consider public interest has not been sufficiently provided for, rather than construction of a statute."

Motor Truck Traffic Continues Ahead of Last Year

Commodity movements by motor truck in June were 3.2 per cent below the loadings in May, but 15.81 per cent above June, 1936, according to truck loadings reported monthly to American Trucking Associations, Inc. A total of 134 companies in 30 states and the District of Columbia filed reports, which showed June loadings of 613,076 tons, as compared with May's revised figure of 633,378 tons, and 529,345 tons in June, 1936. The truck loading index, based on the monthly average of 1936 as representing 100, stands at 117.91 for June, as compared with 118.1 for May.

Among the reporting companies, the statement says, "are some of the largest motor carriers in the country, but the A. T. A. survey does not purport to indicate the amount of freight transported by motor carriers for the entire industry. It is designed chiefly to show the trend in the movement of commodities by truck. For that reason, comparisons are made in percentages." The statement goes on to say, however, that since the survey was inaugurated at the beginning of the year, "there has been a more or less steady increase in the actual tonnage reported, indicating that the figures are becoming more reflective of the business of an ever

increasing portion of the motor carrier industry."

Loadings of general merchandise accounted for about 55 per cent of the total tonnage reported for June. For this traffic the increase over June, 1936, was 15.28 per cent. Iron and steel hauling decreased 8.32 per cent as compared with June, 1936, and 22.98 per cent under May, 1937. On the other hand the June movement of petroleum and petroleum products was 41.98 per cent above the same month last year, and 5.15 per cent ahead of May, 1937.

Freight Car Loading

Revenue freight car loading for the week ended July 17, totaled 770,075 cars, an increase of 87,870 cars or 12.9 per cent above the preceding week which contained the July 4 holiday, an increase of 49,716 cars or 6.9 per cent above the corresponding week in 1936, and an increase of 177,403 cars or 29.9 per cent above the corresponding week in 1935. All commodity classifications showed increases over the preceding week, while all commodity classifications except coal, grain, and live stock showed increases over last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading

For Week Ended Saturday, July 17

Districts	1937	1936	1935
Eastern	151,152	148,556	129,198
Allegheny	155,218	147,020	113,322
Pocahontas	48,068	48,024	38,443
Southern	100,526	94,166	80,333
Northwestern	135,257	115,598	90,077
Central Western	122,087	110,883	92,755
Southwestern	57,767	56,112	48,544
Total Western Districts	315,111	282,593	231,376
Total All Roads	770,075	720,359	592,672
Commodities			
Grain and Grain Products	49,127	58,573	33,384
Live Stock	10,481	12,317	10,164
Coal	105,430	108,510	89,701
Coke	10,368	8,660	4,679
Forest Products	42,087	33,986	28,415
Ore	79,733	53,680	34,122
Merchandise L.C.L.	162,954	160,464	155,880
Miscellaneous	309,895	284,169	236,327
July 17	770,075	720,359	592,672
July 10	682,205	724,277	565,502
July 3	806,168	649,703	471,126
June 26	773,733	713,588	616,863
June 19	756,289	690,667	567,049
Cumulative Total, 29 Weeks	21,186,554	18,678,133	16,790,029

In Canada.—Car loadings for the week ended July 17 totaled 49,858, as against 47,912 in 1936 and 51,821 cars for the previous week, according to the weekly summary of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
July 17, 1937	49,858	24,684
July 10, 1937	51,821	22,940
July 3, 1937	46,131	26,312
July 11, 1936	47,912	20,891
Cumulative Totals for Canada:		
July 17, 1937	1,336,386	778,901
July 11, 1936	1,216,910	654,842
July 13, 1935	1,199,488	616,180

Dailey Gets I.C.C. Hearing on O. & W. Trusteeship

The Interstate Commerce Commission has assigned, for public hearing at Washington, D. C., on August 5, the petition of Vincent Dailey for a reconsideration of his application for ratification as co-trustee of the New York, Ontario & Western. As reported in the *Railway Age* of June 17, page 84, the commission rejected Mr. Dailey's application in a decision which found that Frederick E. Lyford should be the sole trustee of the property.

In his petition for the reconsideration, Mr. Dailey, who has been prominent in New York state Democratic circles and is now associated with the Bulova Watch Company, took the position that an oral hearing, "with opportunity granted to the petitioner to more fully present the facts relating to his business experience and his capacity to fill the appointed position, would have resulted in a ratification of his appointment." He stated further that he has participated in conferences in connection with the O. & W., has made a study of its financial structure and of "its needs and requirements to bring about necessary rehabilitation."

Referring to the O. & W. coal mining affiliates, Mr. Dailey contends that the debtor's problem "is not one confined to a mere matter of railroad operation"; and thus he thinks that his qualifications as a business man "should favor rather than react against the ratification of his appointment."

Finally, Mr. Dailey submits that "with respect to the matter of economy and the money interests of the debtor" the question as to the proper number of trustees rested entirely with the court, and the jurisdiction of the commission "is limited to determination of fitness."

To the decision which ratified only Mr. Lyford's appointment, Commissioner Mahaffie dissented in part, asserting that he would have ratified Mr. Dailey also, because "the trustee of this property, in addition to operating the railroad, will be greatly concerned with the coal business."

Senators Reserve Opinion On Holding Company Merger

Senator Wheeler, chairman of the Senate Committee on Interstate Commerce, has notified the New York Stock Exchange that his committee has not given its approval to the proposed consolidation of the Alleghany Corporation and the Chesapeake Corporation, both of which are holding companies in the so-called Van Sweringen system. The information was contained in a letter from Senator Wheeler to J. M. B. Hoxsey, executive assistant of the committee on stock list of the New York Stock Exchange. Senator Wheeler was referring to the proposed plan of consolidation of these two holding companies which is being worked out by the syndicate headed by Robert B. Young of New York which is now in control of the Van Sweringen "empire." Senator Wheeler also told Mr. Hoxsey that his committee, which has been investigating railroad financing, is now looking into this plan.

The letter to Mr. Hoxsey follows:

"There have come to my attention published statements to the effect that I have approved of the proposed consolidation of the Alleghany Corporation and the Chesapeake Corporation. One of these published reports is to the effect that I have approved 'step by step,' the plans of the Young-Kolbe-Kirby group.

"Such is not the fact. Although agents of the senate committee on interstate commerce investigating railroad financing and related matters have been and are currently investigating various steps in the proposed consolidation, that investigation is not yet complete, and neither I nor the committee have come to any conclusion as to the merits of the proposed plan, and have given no indication that I approve of it. The fact that the Senate committee has held no hearings on this plan should not be taken as an approval by the committee of the plan.

"In view of our previous discussions at public hearings of the Senate committee of the matter of listing securities of railroad holding companies, I am writing this to you so that you may be uninfluenced by these published reports in passing on applications to list securities under the plan on the New York Stock Exchange."

Senator Wheeler said that his committee would resume hearings on rail financing on August 2. It is expected that Mr. Young will be the first witness. It is also understood that the committee will give the Interstate Commerce Commission an opportunity to state its opinion as to the proposed consolidation.

New Missouri Pacific Plan Expected in Near Future

The Interstate Commerce Commission has postponed further hearings on the Missouri Pacific reorganization plan until sometime shortly after September 10. This ruling was made at the conclusion of the two day hearing on July 27, when W. Lord Kitchell, counsel for the Stedman committee which represents the first and refunding mortgage bondholders, announced that after a long conference the preceding evening, his committee and the management of the Missouri Pacific had agreed that after September 10, both groups would be at liberty to file new plans or amendments to their pending plans if the two committees had not agreed on a plan by that date. He also said that his committee would file a new plan if a joint plan does not materialize. He asserted that both sides were very desirous of bringing the case to a speedy conclusion and hoped to be able to agree upon a plan which would be satisfactory to all interests concerned. Mr. Kitchell also told Commissioner Meyer, who was presiding, that they felt that the general railroad picture might be clarified to some extent by September 10, in view of the fact that the Senate had passed the train-limit bill and the wage negotiations between railroad management and the brotherhoods were continuing. If the train limit bill is passed and the wage negotiations are concluded, the two groups would be in a better position to bring in a plan of reorganization, he said.

At the session on July 26, it was learned that an agreement had been reached by the New Orleans, Texas & Mexico bondholders with both the Stedman committee and the management of the Missouri Pacific concerning their treatment in the reorganization. This action came as a distinct surprise, since these bondholders had opposed

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Will start a capacity train.

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Such power is low in operating and maintenance costs and assures maximum net earnings.

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the plan and had threatened to separate the Gulf Coast lines from the Missouri Pacific. No details of the agreement were available, but it is understood that the new plan gives the bondholders considerably better treatment than they were to be accorded under the plan of the management.

Considerable time was spent by counsel for the Chicago, Burlington & Quincy, which is intervening in an effort to protect its interests in the Terminal Shares properties in North Kansas City, Mo., in cross-examining various officers of the Missouri Pacific. The Burlington now owns a one-third interest in these properties, which are strategically located in the manufacturing district of North Kansas City, and is desirous of maintaining its present equity in them. Counsel for the Burlington seemingly feel that in the final reorganization it might be frozen out.

Officials of the commission's Bureau of Accounts and Valuation were cross-examined concerning accounting and valuation reports of the Missouri Pacific which have been made in connection with the reorganization of the road. F. P. Johnson, chief accounting officer of the Missouri Pacific, offered exceptions to the Bureau reports.

Farmers to Pay Labor's Wage Rise

(*Continued from page 143*)

are to be secured by the formation of powerful national labor unions in addition to those now in existence; by the use by these unions of collective bargaining and political methods; and, apparently, if these means are not effective enough, by the employment of such coercive methods as C. I. O. has been using.

"The railroads are now the most highly unionized large industry in the country. The railway labor unions, while claiming to be 'conservative,' are demanding advances in their wages to levels much higher than ever reached before upon the ground that 'labor' has a 'right to a larger share of the national income'; and they are backing their demands by taking strike votes. The economic future of the country may be largely determined by the outcome. It may result in government ownership of railways; and it is sure at least to set a precedent for wage settlements in other large industries.

"If labor in transportation and industry is going to get an increased *share* of the national income, it must follow that the other workers of the country are going to get a reduced share of it; and *those whose share will be reduced most will be the farmers and other persons living in rural communities* who constitute 40 per cent of the working and producing population—as large a part as what is commonly called 'labor.'

"It may be replied that transportation and industrial labor will get its increase by taking it from the return paid upon capital. But consider the case of the railways. The total net operating income earned by them last year with which to pay a return on all their capital investment was $667,000,000. The annual wage advances being asked by the railway labor unions are almost equal to this amount. Therefore, if these wages advances were made they would either (1) bankrupt all the railways and drive them into government ownership, or (2) make necessary a large advance not only in the rates of the railways, but also in the rates of competing water and highway carriers if these latter carriers were to be prevented from causing the railways a ruinous loss of traffic.

"Who would pay most of the taxes to meet the railroad deficit if, under government ownership, rates were not advanced? Who would pay most of the advance in passenger and freight rates if they were advanced under either government or private ownership? Obviously, the 60 per cent of the workers consisting of farmers and other persons not employed in transportation and industry and therefore not classed as 'labor'. And if wages are to be correspondingly advanced and hours of work reduced in the manufacturing, mining and construction industries, who will pay most of the resulting advances in the prices of these industries? Obviously, the 60 per cent of the workers consisting of farmers and other persons not employed in these industries. *The farmers will be the hardest hit of all,* both because they are the largest group not employed in transportation and industry, and because it is much more difficult or impossible for them than any other class of producers to fix the prices they will accept."

Would Deny U. P. Certificate to Serve Sun Valley Lodge

Joint Board No. 49, composed of Commissioner Harry Holden of the Public Utilities Commission of Idaho, has recommended in a proposed report to the Interstate Commerce Commission that the granting of a certificate to the Union Pacific for the operation of bus service between Shoshone, Idaho, and Sun Valley Lodge, be withheld "until the action now pending in the federal court against the applicant is disposed of," and the applicant has "purged itself of wilful and persistent violation of the federal motor carrier act."

The report alleges that the U. P. proceeded to operate the bus services after receiving an Idaho permit, despite the fact that the Idaho commission had stipulated that its favorable action on the application was contingent upon the road's receiving a certificate from the I.C.C. Also, the report cites the federal court proceedings instituted against the U. P. in connection with the bus route involved.

Mr. Holden finds that the Union Pacific "is financially able" to conduct the operation proposed, being "a rich and powerful corporation." He predicts, however, that such "wealth and influence" will not justify the alleged violation, which, Mr. Holden says, has demonstrated the road's "lack of fitness to conduct the proposed operations." He disposes of the contention that there is no other common carrier on the route capable of handling people to and from Sun Valley Lodge by calling attention to the existence there of an intrastate operator who has applied for an I.C.C. certificate.

Equipment and Supplies

LOCOMOTIVES

THE NEWBURGH & SOUTH SHORE has ordered two locomotives of the 0-6-0 type from the Lima Locomotive Works. Inquiry for this equipment was reported in the *Railway Age* of July 3.

FREIGHT CARS

THE PEORIA & PEKIN UNION is inquiring for 25 hopper cars.

THE CAMBRIA & INDIANA is inquiring for 500 hopper cars of 50 tons' capacity.

THE ILLINOIS CENTRAL is inquiring for 500 hopper cars instead of 25 as reported in the *Railway Age* of July 3.

THE PHELPS DODGE COMPANY has ordered six flat cars of 50 tons' capacity, from the Youngstown Steel Car Corporation.

THE CHICAGO & NORTH WESTERN has ordered 50 caboose car underframes from the American Car & Foundry Company. Inquiry for this equipment was reported in the *Railway Age* of July 3, page 29.

THE TEXAS & PACIFIC is inquiring for 500 or 1,000 steel-sheathed box cars of 50 tons' capacity, 40 ft. 6 in. long, and 100 steel hopper cars of 50 tons' capacity, 33 ft. long.

IRON AND STEEL

DELAWARE & HUDSON—A contract for about 850 tons of steel has been let to the Bethlehem Steel Company for grade crossing elimination work in the village of Cobleskill, N. Y. The Wilson & English Construction Company, New York, has the general contract.

Construction

CHICAGO, BURLINGTON & QUINCY.—Contracts have been awarded to the Ogle Construction Company, Chicago, for the construction of two 300-ton reinforced concrete coaling stations, one at Creston, Iowa, and the other at Hastings, Neb.

DELAWARE & HUDSON—The contract for grade crossing elimination work on this road in the village of Cobleskill, N. Y., has been let to the Wilson & English Construction Company, New York. See item in the *Railway Age* of July 3, page 30.

VIRGINIAN.—A contract has been let to the Mountain Construction Company, Huntington, W. Va., for construction to subgrade for storage and mine tracks east of Page, W. Va., and a contract has been given to the Sutton Co., Inc., Ashland, Ky., for construction to subgrade, section B of Morri branch, about seven miles, near Oceana, W. Va.

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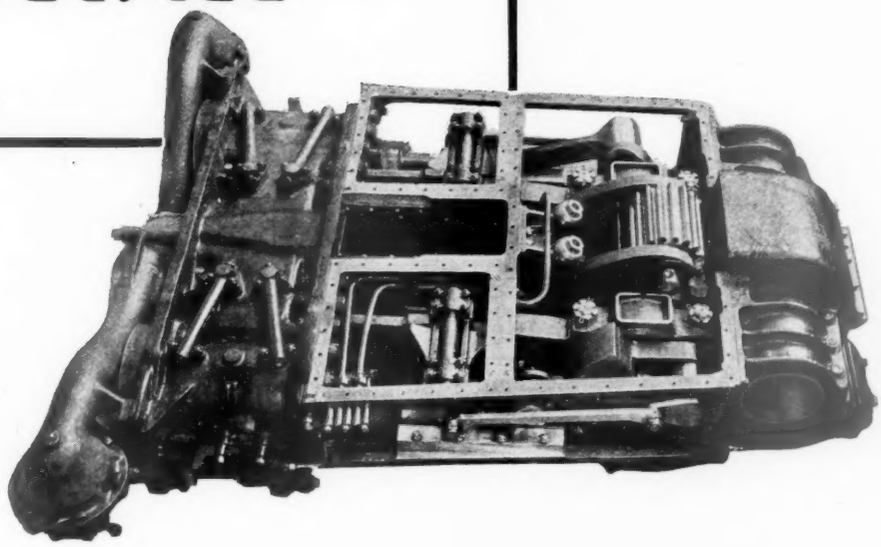

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It provides for: Necessary starting power. » » » Rapid acceleration to road speeds. » » » Engagement on grades, thus insuring a higher minimum speed over the hard pulls.

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NEW YORK CHICAGO MONTREAL

Supply Trade

R. L. Morrison, district manager of the **Bendix-Westinghouse Automotive Air Brake Company,** with offices at Detroit, Mich., has been appointed general manager, with headquarters at Pittsburgh, Pa., succeeding Robert M. Heinrichs, deceased. Mr. Morrison received his early business training with the Westinghouse

R. L. Morrison

Air Brake Company at Wilmerding, Pa., having joined this organization in November, 1915. Here he was employed in various departments until April 1, 1926, when he was transferred to the company's automotive division and became associated with the Pittsburgh service station. Mr. Morrison remained in this position until August 1, of the same year, at which time he was transferred to Detroit.

Representing a consolidation of the **United States Plywood Company** and the **Aircraft Plywood Corporation,** the United States Plywood Company of New York has been formed with assets of approximately $4,000,000 and a surplus of $1,500,000, having manufacturing plants in Seattle and Olympia, Wash.

G. F. Ahlbrandt and **W. W. Lewis** have been appointed as assistant vice-presidents of **The American Rolling Mill Company,** and **H. M. Richards** has been appointed manager of the sheet and strip sales division. Mr. Ahlbrandt joined the Armco organization in 1904, as an open hearth chemist. He later became assistant open hearth superintendent and in 1909 entered sales work for the company, ultimately becoming general manager of sales.

Mr. Lewis came to Armco in 1917, as assistant open hearth superintendent. In 1922, he took up sales work and in 1925 was made manager of the London branch of Armco International Corporation. Returning to Armco sales headquarters in 1927, he was appointed assistant to the vice-president, in charge of commercial activities.

Mr. Richards joined Armco in 1913, as a clerk in the order department, later becoming assistant manager in that department. In 1916, he was made a salesman, and in 1924 was appointed district manager of Armco's Cleveland, Ohio, office, where he remained until 1931, when he was appointed assistant general manager of sales.

J. L. Terry, president of the **Q & C Company,** who has been elected treasurer also, has been connected with that company for the past 20 years. Prior to that time, he was employed in various capacities in the operating department of the Santa Fe, Colorado & Southern, and the Denver & Rio Grande. In October, 1914, he resigned as general superintendent of the then Denver, Laramie & Northwestern railway to engage in the railroad supply business. He entered the service of the Q & C Company in 1916, as western representative at San Francisco. He was transferred to St. Louis in 1917; to Chicago in 1927, and to New York in 1932. During most of 1918 and 1919, Mr. Terry was in France as an engineer officer in the United States Army, his last assignment with the American Expeditionary Forces being with the transportation corps as superintendent of the American railroad operations of the Le Mans-Brest territory of the Etat system. Upon his return to the United States in August, 1919, he resumed service with the Q & C Company as assistant to the president. In October, 1927, he was elected first vice-president, which position he held until his election as president on February 17, 1937. Announcement of Mr. Terry's election appeared in the July 24 issue of the *Railway Age,* page 124.

OBITUARY

Fitz William Sargent, who has been chief engineer of the American Brake Shoe & Foundry Company since 1902, died on July 25, at his home in Mahwah, N. J., at the age of 78. After graduation from Lehigh University in 1879, with the degree of civil engineer, he entered railway service with an engineering company engaged in construction work on the Denver & Rio Grande (now Denver & Rio Grande Western), rising through the posts of rodman, transitman, and resident engineer. From 1881 to 1883, he was engaged as assistant engineer in charge of surveys and construction with the National Railways of Mexico. From 1883 to 1884 he served the Norfolk & Western as assistant engineer of construction. Becoming engineer of tests for the Chicago, Burlington & Quincy in 1884, he was promoted to mechanical engineer in 1886, with headquarters at Aurora, Ill. Abandoning direct railway service, Mr. Sargent, in 1891, became chief engineer for the Congdon Brake Shoe Company, Chicago, transferring in 1893 to the Sargent Company-American Brake Shoe & Foundry Company. Finally, in 1902, he was appointed chief engineer of the American Brake Shoe & Foundry Company and the Dominion Brake Shoe Company, which post he held until his death. Mr. Sargent is the author of "The Development of the Modern Brake Shoe" and "Master Car Builders Brake Shoe Tests."

Financial

BALTIMORE & OHIO.—*Securities.*—The Buffalo, Rochester & Pittsburgh company has applied to the Interstate Commerce Commission for authority to issue $4,427,000 of consolidated mortgage bonds and the same amount of short term notes and to pledge and repledge from time to time as security for such loans and any extension or renewal thereof all or part of $5,183,000 of its consolidated mortgage 4½ per cent bonds.

CHICAGO, ROCK ISLAND & PACIFIC.—*Merger Application Dismissed.*—The Interstate Commerce Commission, Division 4, has dismissed the application of the trustees of this company to merge it with the Chicago, Rock Island & Gulf for the reason that the commission feels that it does not have jurisdiction over such a merger.

CHICAGO, ROCK ISLAND & PACIFIC.—*Refunding.*—Refunding by the Chicago, Rock Island & Pacific of $29,000,000 of equipment trust obligations was approved by the federal district court at Chicago on July 27. A blanket order was issued by the court directing trustees of the road, subject to the approval of the Interstate Commerce Commission, to proceed with the proposed program, since 68 per cent of the required 90 per cent of the holders of the outstanding lien have signified their acceptance.

CHICAGO, SOUTH SHORE & SOUTH BEND.—*Securities.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue the following securities in effecting a plan of reorganization: (1) $1,341,000 of three per cent 25 year first mortgage bonds, series B; (2) $212,800 of 5 year five per cent promissory notes; (3) $4,350,000 of $5 first preferred stock, consisting of 43,500 shares of the par value of $100 a share; (4) $1,947,600 of $6.50 second-preferred stock, consisting of 19,476 shares of the par value of $100 a share; and (5) 122,000 shares of common stock of no par value.

KANSAS CITY, SHREVEPORT & GULF TERMINAL.—*Extension of Bond Maturity.*—This company has applied to the Interstate Commerce Commission for authority to extend the maturity date of its $150,000 of bonds from August 1, 1937, to August 1, 1950. The applicant's parent railroad—the Kansas City Southern—owns all of the bonds involved.

MISSOURI PACIFIC.—*Leave To Intervene Granted.*—The Interstate Commerce Commission, Division 4, has issued an order permitting the Commercial National Bank & Trust Company of New York to intervene in the reorganization proceedings of this company.

MISSOURI PACIFIC.—*Bond Interest.*—Arrangements for the immediate payment of $7,743,687 representing a six-month installment of delinquent interest on bonds of the Missouri Pacific and two of its subsidiaries are being made by the trustee. The district court at St. Louis had authorized the payment on July 9, but stayed the order to allow an appeal by the com-

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NO. 25 OF A SERIES OF FAMOUS ARCHES OF THE WORLD

THE WASHINGTON ARCH

The Washington Arch, located at the foot of New York's famous Fifth Avenue, was dedicated May 4, 1895, "To commemorate The One Hundredth Anniversary of The Inauguration of George Washington as First President of The United States." Designed by Stanford White, erected at a cost of approximately $128,000 which was subscribed by the public, this arch of white marble has a total height of 73 feet, 6 inches; a total width of 56 feet, 10 inches; the arch opening is 47 feet, 9 inches high, and 30 feet wide. » » »

The Security Sectional Arch for the locomotive firebox, introduced by The American Arch Company, was among the first serious efforts toward fuel economy and increased locomotive capacity. Today the brick arch is essential in the operation of modern steam power, not alone from the standpoint of fuel economy, but the large capacity modern firebox would be impractical without it.

* * *

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

pany which contended the payment would interfere with pending reorganization proceedings. On July 22 Guy A. Thompson informed the court that the railroad had abandoned plans to appeal the order. The authorized payment included $6,601,012 on Missouri Pacific first and refunding bonds and $1,141,675 on bonds of the New Orleans, Texas & Mexico and the St. Louis, Brownsville & Mexico.

Guy A. Thompson, trustee, announced on July 27 that interest on first and refunding bonds is to be paid on August 10 and that holders of the bonds participating in this distribution must accept it as payment in full for interest due on the 1933 coupons of the five issues involved and must waive any right to interest on the interest. August 3 has been set as the record date for depositors who are to receive interest on the bonds by the committee of holders of the first and refunding issues. Payment also will be made on August 10 of interest on the first mortgage bonds of the New Orleans, Texas & Mexico, the series A, B, C and D income bonds and the St. Louis, Brownsville & Mexico Railway first mortgage issue.

MISSOURI PACIFIC.—*Motor Carrier Acquisition.*—Examiner Frank A. Clifford has recommended in a proposed report to the Interstate Commerce Commission that this road's highway affiliate—the Missouri Pacific Transportation Company—be authorized to purchase the operating rights and property of the White Line Stage Line, and a portion of the operating rights and property of the Dardanelle Transfer Company, the former for $18,000 and the latter for $6,500. The White Line routes involved are between Kansas City, Mo., and Lexington, and between Kansas City and Higginsville; those of the Dardanelle Transfer are between Paris, Ark., and Dardanelle, and between Russellville and Morrillton. In the latter situation the examiner would impose a condition prohibiting M. P. operations in interstate commerce over the portion of the route between Dardanelle and Russellville where the bill of sale provided that Dardanelle Transfer would retain equal rights. It is the examiner's view in this connection that a common carrier's right to operate "is an inseparable one, and its retention would render the transfer of a coincident right invalid," as it would contravene the motor carrier act's provisions "requiring proof of public convenience and necessity in cases where a new operation is sought to be substituted."

NEW YORK, NEW HAVEN & HARTFORD.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized the trustees to abandon a line extending from Pascoag, R. I., to Douglas Junction, Mass., 6.85 miles.

Dividends Declared

Bangor & Aroostook.—Common, 63c, quarterly; Preferred, $1.25, quarterly, both payable October 1 to holders of record August 31.

Average Prices of Stocks and Bonds

	July 27	Last week	Last year
Average price of 20 representative railway stocks..	52.68	53.48	54.74
Average price of 20 representative railway bonds..	80.65	80.71	80.95

Railway Officers

FINANCIAL, LEGAL AND ACCOUNTING

W. A. Townes has been appointed general attorney for the Atlantic Coast Line, with headquarters at Wilmington, N. C., having charge of litigation and legal matters in connection with freight claims and such other matters as may be referred to him by the president.

OPERATING

E. E. Honn, who has retired as superintendent of the Arkansas division of the Railway Express Agency, with headquarters at Little Rock, Ark., as reported in the *Railway Age* of July 17, has a record of 48 years of continuous service with express companies. Starting as an office boy at Omaha, Neb., in 1889, he was advanced through various positions. He served as cashier at St. Louis, Mo., and route agent at Denver, Colo., later being sent to San Francisco, Cal., as superintendent. Following a reorganization of the company's methods, he was sent to Chicago as general accountant, later returning to the position of superintendent at San Francisco. Mr. Honn was appointed efficiency superintendent in 1917 and became superintendent of the Arkansas division in October, 1921, remaining there until his retirement.

S. F. Pitcher, who has been appointed superintendent of organization of the southern departments of the Railway Ex-

S. F. Pitcher

press Agency at Atlanta, Ga., as announced in the *Railway Age* of July 17, has a record of 23 years of service in the express business. Mr. Pitcher spent his first eleven years in this work at Chattanooga, Tenn., during which time he held twenty different positions. He went overseas with the A. E. F. in August, 1918, and in July of the following year returned to business. In September, 1924, Mr. Pitcher was promoted to assistant route agent at Atlanta and became terminal agent the next year. He was appointed general agent at Atlanta in 1931 and superintendent of the Georgia division in April, 1936, the position he held until his recent appointment.

John D. Anderson, chief clerk to the general manager of the Railway Express Agency at Omaha, Neb., whose appointment as superintendent of the Central Iowa division with headquarters at Des Moines, Iowa, was reported in the *Railway Age* of July 17, has been in the service of

John D. Anderson

express companies for nearly 32 years. He entered the service as a porter at Cincinnati, Ohio, and after six years in various capacities at that point he became chief clerk to the superintendent at Toledo, Ohio. Subsequently, Mr. Anderson was sent to Chicago, where he spent two years in the loss and damage and claim departments. Next, he was sent to Des Moines as chief clerk to the superintendent and later served as route agent at that point, Council Bluffs, Iowa, and Grand Island, Neb. In February, 1933, he was appointed chief clerk to the general manager of the Trans-Missouri department at Omaha, which position he held until his recent appointment.

J. G. Shannon, who has been appointed assistant to the vice-president of the Central departments of the Railway Express Agency, Inc., with headquarters at Chicago, as reported in the *Railway Age* of July 17, was born on September 8, 1880. Mr. Shannon first entered express service with Wells, Fargo & Co. on October 17, 1899, beginning as a driver at Fayetteville, Ark. During the following 22 years he served in various capacities, including those of clerk, acting agent, cashier, acting chief clerk, acting route agent, route agent and special route agent. On September 1, 1911, he was appointed auditor of express receipts at Chicago and in the following year he was appointed special accountant at the same point. On January 1, 1913, he was named efficiency accountant, with the same headquarters, holding this position until August 1, 1916, when he was sent to New York as an analyst. After a year in the latter capacity he returned to Chicago as claim supervisor. On July 1, 1918, when the various railway express companies were consolidated to form the American Railway Express Company, Mr. Shannon was appointed superintendent of the bureau of organization at Chicago, holding this position until 1920, when he was made superintendent of the Central

Continued on next left-hand page

Correct Engineering

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Illinois division with the same headquarters, continuing in this capacity when the Railway Express Agency was formed in 1929. Following a rearrangement of operating territories in April, 1931, he was placed in charge of the Western Illinois

J. G. Shannon

and Eastern Iowa divisions, with headquarters still at Chicago. On February 1, 1937, Mr. Shannon was sent to New York as superintendent of organization and chairman of the Standard Practices committee, which positions he was holding at the time of his recent appointment.

W. O. R. Hannan, who has been appointed superintendent of the Arkansas division of the Railway Express Agency, with headquarters at Little Rock, Ark., as reported in the *Railway Age* of July 17, was born on December 15, 1888, at Louisville, Ky. Graduating from high school in June, 1907, Mr. Hannan entered express service in October of the same year with the Adams Express Company, which is now incorporated as a part of the Railway Express Agency. Subsequently, he became

W. O. R. Hannan

agent for the company at Lexington, Ky., holding this position until April, 1913, when he was sent to Evansville, Ind., as route agent. In October, 1917, he resigned to join the army, serving at Camp Taylor. After leaving the army he then returned to express service as chief clerk to the superintendent at St. Louis, Mo., which position he held until June, 1922, when he was promoted to general agent at Little Rock, being transferred to Memphis, Tenn., in October, 1932. His appointment as superintendent of the Arkansas division became effective on July 1.

TRAFFIC

Edwin A. Turner has been appointed general passenger agent, eastern district, of the Southern Pacific with headquarters at New Orleans, La.

P. L. Raper, freight traffic agent on the Nashville, Chattanooga & St. Louis, has been appointed to the newly created position of general agent with headquarters at Jackson, Tenn.

Karl H. Suder has been appointed general coal agent for the Akron, Canton & Youngstown and the Northern Ohio, in addition to his duties as purchasing agent for those roads.

Edwin A. Turner, assistant general passenger agent on the Southern Pacific at New Orleans, La., has been promoted to general passenger agent, with the same headquarters, to succeed **William C. McCormick,** whose death on July 2 was reported in the *Railway Age* of July 17.

J. F. Egan, general dairy agent and traffic manager of dairy products for the American Refrigerator Transit Company, with headquarters at St. Louis, Mo., has been appointed western traffic manager, with headquarters at Denver, Colo. **W. V. Clower** has been appointed general agent and traffic manager of dairy products at St. Louis to succeed Mr. Egan.

W. H. Kreiling, general agent of the Chicago & North Western with headquarters at Kansas City, Mo., has been promoted to division freight agent with headquarters at Chicago and has been succeeded by **F. P. Eyman,** general agent at Dallas, Texas, who, in turn, has been succeeded by **M. D. Spaulding,** traveling agent at Atlanta, Ga. **E. H. Lamb,** general agent at Los Angeles, Cal., has been appointed general agent, passenger department, with the same headquarters. **N. D. Browne,** general agent at Salt Lake City, has been appointed general agent, freight department at Los Angeles and has been succeeded by **F. T. Lewis,** city agent at San Francisco. **G. A. Langworthy,** division freight and passenger agent at Casper, Wyo., has been appointed division freight and passenger agent at Des Moines, Iowa, to succeed **M. J. Golden,** retired, and has been succeeded by **H. Eklund,** traveling agent at Peoria, Ill. **J. M. Peters,** traveling agent at Green Bay, Wis., has been promoted to general agent to succeed **R. W. McGinnis,** retired.

ENGINEERING AND SIGNALING

G. C. Felton, supervisor of telegraph & signals, Buffalo division of the Pennsylvania, has been appointed to the same position in the Middle division, with headquarters at Altoona, Pa.

F. U. Mayhew, formerly a division engineer on the Chicago Great Western, has been appointed chief engineer of the Minneapolis, Northfield & Southern, the Minnesota Western and the Electric Short Line Terminal Company, with headquarters at Minneapolis, Minn., to succeed **M. W. Peterson,** who has been assigned to the traffic department.

MECHANICAL

H. E. Hinds, chief draftsman (locomotive) of the Chicago, Burlington & Quincy, has been appointed assistant mechanical engineer, with headquarters as before at Chicago.

Ernest R. Lind has been appointed general mechanical inspector of the Northern Pacific, with headquarters at St. Paul, Minn., to succeed **R. P. Blake,** who has retired.

A. J. Neff, work equipment foreman on the Erie at North Hawthorne, N. J., has been appointed to the newly-created position of supervisor of work equipment for the Denver & Rio Grande Western, with headquarters at Denver, Colo.

PURCHASES AND STORES

E. H. Hughes, general storekeeper of the Kansas City Southern, with headquarters at Pittsburg, Kan., has been appointed purchasing agent, with headquarters at Kansas City, Mo., effective August 1, succeeding **B. B. Brain,** who is retiring from active service after 33 years with this company.

Mr. Brain, who is 72 years old, first entered the service of the Kansas City Southern on October 1, 1901, as general storekeeper at Pittsburg. In February, 1903, he was appointed chief clerk to the purchasing agent at Kansas City, which position he held until November, 1907, when he was made fuel agent. From February, 1911, until February, 1913, Mr. Brain was out of service, returning to the Kansas City Southern at the end of this period as fuel agent. In November, 1920, he was advanced to purchasing agent, which position he held until his retirement.

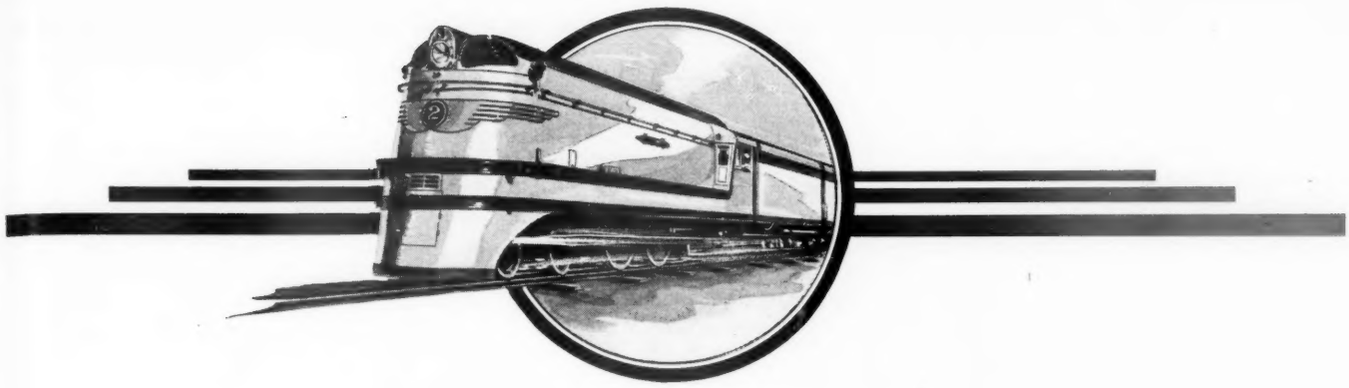
OBITUARY

William H. Johnson, who retired as general freight agent of the Pennsylvania with headquarters in Chicago on March 1, 1936, died in Evanston, Ill., on July 26.

William L. Nichol, general freight agent of the Nashville, Chattanooga & St. Louis, with headquarters at Nashville, Tenn., died on July 25 following a long illness.

George Burdette Bird, formerly auditor of the Grand Trunk Western, died at his home in Lakeland, Fla., on July 14. Mr. Bird was born at Elba, Mich., on February 16, 1874. He was appointed auditor of the Grand Trunk Western on June 1, 1930, and served in that capacity until his retirement on October 1, 1936. Prior to this appointment he served in various accounting capacities with the Pere Marquette; Cincinnati, Hamilton & Dayton, and the Great Northern.

Table of Freight Operating Statistics appears on next left-hand page



Railroad Reports Over Recent Years Show That Repairs On Old Equipment Are Potent Factor In Reducing Profits Of Carriers

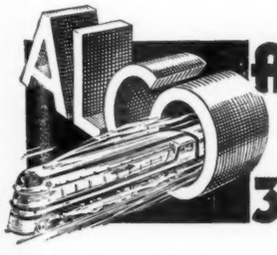
"A railroad man recently explained the high repair costs of equipment on his road last year by saying that the line until recently had purchased no new cars or engines for several years. . . .

"Effect of repair item on revenues is apt to become more evident in periods of rising traffic as older motive power and rolling stock can be relegated to storage when loadings drop, while they must be brought out and put into serviceable shape to take care of ascending traffic. Naturally, the newer and more efficient equipment is put on the lines first with the result that as older and still older cars and engines start operating to meet rising shipments, not only repairs but double heading shorter trains, fuel and labor shoot cost up out of all proportion to volume of business.

"The idea is general throughout industry that in periods of rising business, ratio of cost increase should be considerably lower than that of gross business done. In the past four years, however, maintenance and transportation costs of the roads have risen at approximately the same rate as have gross revenues. In other words, the railways do not seem to be obtaining anything like the full benefits that should be expected from betterment of traffic. . . .

"While comparisons between various roads are hardly possible because of the many individual factors in the situation, it is noticeable *that the road with the lowest percentage of old equipment is the only road to show a lower repair cost per traffic mile in 1936 than in 1934.*"

Arundel Cotter
Wall Street Journal
July 8, 1937



AMERICAN LOCOMOTIVE COMPANY

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Freight Operating Statistics of Large Steam Railways—Selected Items for the Month of May,

Region, road, and year		Miles of road operated	Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (*thousands*)	Car-miles: Per cent loaded	Ton-miles (*thousands*): Gross, excluding locomotives and tenders	Ton-miles (*thousands*): Net, revenue and non-revenue	Number of road locomotives on line: Serviceable: Not stored	Serviceable: Stored	Unserviceable	Per cent unserviceable
New England Region:													
Boston & Albany	1937	374	145,797	150,634	9,703	3,420	67.9	187,199	65,746	59	17	15	16.5
	1936	373	130,984	135,518	9,313	3,310	67.1	175,624	60,764	51	10	31	33.7
Boston & Maine	1937	1,941	285,292	322,057	28,713	10,860	72.3	578,342	219,289	127	1	138	51.9
	1936	1,972	279,346	313,811	30,825	9,897	69.0	541,526	203,366	123	6	163	55.8
N. Y., New Hav. & Hartf.	1937	2,016	366,954	459,601	30,585	13,271	69.4	700,668	263,221	196	5	73	26.2
	1936	2,035	356,389	437,941	19,325	12,063	65.3	670,793	249,810	181	8	98	35.8
Great Lakes Region:													
Delaware & Hudson	1937	830	240,829	327,897	37,197	8,897	67.1	538,615	257,976	93	149	33	12.0
	1936	831	233,553	317,146	37,580	8,079	64.1	506,057	239,195	117	129	41	14.3
Del., Lack. & Western	1937	983	403,308	449,990	59,800	14,145	68.0	828,285	336,930	126	14	84	37.5
	1936	983	379,032	421,443	57,394	12,440	66.0	735,311	287,227	149	1	91	37.8
Erie (incl. Chi. & Erie)	1937	2,284	725,025	766,453	41,036	31,962	67.1	1,892,258	735,699	223	44	204	43.3
	1936	2,298	680,624	721,558	39,369	29,448	65.3	1,763,615	663,063	214	45	215	45.4
Grand Trunk Western	1937	1,027	283,918	286,208	3,077	8,277	65.2	484,135	170,743	84	..	50	37.3
	1936	1,027	281,404	285,159	3,750	7,667	62.8	461,683	159,194	84	..	56	40.0
Lehigh Valley	1937	1,303	383,231	419,682	47,830	14,491	66.6	892,443	381,854	148	7	128	46.2
	1936	1,316	405,010	431,024	50,063	13,572	65.6	840,952	350,099	129	1	161	55.3
New York Central	1937	10,748	2,937,893	3,096,007	193,986	102,117	61.0	6,585,209	2,643,236	885	210	389	26.2
	1936	10,789	2,700,965	2,855,147	172,331	91,801	59.6	5,901,171	2,349,503	831	105	605	39.3
N. Y., Chicago & St. Louis	1937	1,672	521,309	527,253	6,769	18,664	66.9	1,087,193	415,330	163	11	21	10.8
	1936	1,672	474,787	480,613	6,149	16,866	65.0	990,213	359,202	139	24	31	16.0
P[illegible] Marquette	1937	2,081	389,081	403,686	5,395	10,679	60.7	663,014	244,110	119	5	27	17.9
	1936	2,081	381,084	395,757	5,967	10,103	61.4	633,764	229,730	120	3	35	22.2
Pittsburgh & Lake Erie	1937	234	98,250	100,834	....	3,646	61.2	309,072	174,701	25	20	24	34.8
	1936	234	79,099	82,359	34	3,214	62.6	269,539	154,102	28	18	25	35.2
Wabash	1937	2,421	600,207	610,647	12,096	18,850	66.6	1,069,682	372,458	143	29	118	40.7
	1936	2,435	571,619	578,542	11,811	17,833	63.9	1,044,821	352,275	131	32	147	47.4
Central Eastern Region:													
Baltimore & Ohio	1937	6,351	1,651,083	2,017,404	213,975	52,622	64.2	3,565,075	1,648,091	718	34	519	40.8
	1936	6,366	1,505,155	1,846,923	181,669	47,279	63.1	3,187,258	1,433,900	646	28	635	48.5
Central of New Jersey	1937	681	178,108	199,307	42,716	5,835	59.9	403,456	190,161	67	5	67	48.2
	1936	681	147,296	166,517	32,016	4,918	61.4	329,462	153,187	39	28	88	56.8
Chicago & Eastern Illinois	1937	931	184,776	185,077	2,959	4,916	67.6	288,900	115,038	53	2	47	46.1
	1936	931	169,822	170,334	2,607	4,152	67.5	244,155	99,828	56	3	51	46.4
Elgin, Joliet & Eastern	1937	435	114,914	116,921	2,563	3,080	61.6	233,840	117,017	61	3	18	22.0
	1936	434	94,017	95,563	1,761	2,488	62.8	182,517	91,140	58	..	28	32.6
Long Island	1937	393	31,689	32,545	17,046	323	50.9	25,389	10,256	34	6	10	20.0
	1936	393	29,530	30,027	15,948	287	51.0	22,148	8,569	29	5	17	33.3
Pennsylvania System	1937	10,027	3,410,553	3,904,860	428,551	121,476	62.8	8,261,223	3,724,142	1,604	242	476	20.5
	1936	10,034	2,968,534	3,376,643	365,210	105,030	61.7	7,096,897	3,089,492	1,354	166	879	36.6
Reading	1937	1,445	439,810	491,007	56,950	12,964	62.7	909,559	431,478	205	33	95	28.5
	1936	1,449	417,487	458,727	58,314	12,092	61.1	861,118	405,444	203	56	92	26.2
Pocahontas Region:													
Chesapeake & Ohio	1937	3,050	882,139	926,817	39,775	41,017	57.0	3,372,045	1,820,694	388	61	105	19.0
	1936	3,050	852,121	894,730	38,118	39,995	55.8	3,361,275	1,811,329	382	62	88	16.5
Norfolk & Western	1937	2,181	672,786	714,232	37,333	28,503	59.5	2,327,443	1,231,520	234	108	19	5.3
	1936	2,145	627,895	663,852	31,625	25,977	59.0	2,152,397	1,134,395	231	104	35	9.5
Southern Region:													
Atlantic Coast Line	1937	5,116	649,744	650,679	8,890	14,746	62.4	807,426	282,430	235	36	102	27.3
	1936	5,100	615,146	615,509	7,993	12,895	62.2	701,777	239,215	223	51	122	30.8
Central of Georgia	1937	1,886	272,861	279,826	4,166	6,146	72.9	334,320	132,524	104	..	22	17.5
	1936	1,886	248,019	251,807	3,715	5,395	72.8	292,789	112,220	102	..	27	20.9
Illinois Central (incl. Y. & M. V.)	1937	6,547	1,644,232	1,672,016	31,041	40,542	64.4	2,471,532	969,593	712	16	163	18.3
	1936	6,562	1,596,850	1,611,596	29,907	38,159	63.2	2,360,167	921,000	632	15	212	24.7
Louisville & Nashville	1937	4,931	1,306,109	1,411,525	35,068	31,103	59.3	2,173,495	988,176	393	12	156	27.8
	1936	4,998	1,145,339	1,249,361	32,272	27,557	58.7	1,936,569	881,661	348	5	214	37.7
Seaboard Air Line	1937	4,295	543,825	569,562	5,423	14,131	66.5	813,609	299,637	243	4	63	20.3
	1936	4,295	494,202	512,260	4,105	12,632	64.7	722,165	249,995	218	7	101	31.0
Southern	1937	6,596	1,337,029	1,358,998	20,263	30,598	68.7	1,697,870	685,225	494	10	265	34.5
	1936	6,596	1,205,692	1,224,074	19,981	28,080	68.0	1,520,412	582,267	477	33	290	36.3
Northwestern Region:													
Chicago & North Western	1937	8,397	948,097	978,472	21,917	25,958	65.4	1,579,306	623,016	330	131	203	30.6
	1936	8,355	1,007,510	1,052,414	26,543	26,504	65.2	1,604,214	609,021	336	122	247	35.0
Chicago Great Western	1937	1,450	273,774	274,481	4,066	8,013	64.0	480,690	177,632	68	1	24	25.8
	1936	1,458	240,672	241,226	6,818	7,492	60.5	461,852	162,494	57	2	29	33.0
Chi., Milw., St. P. & Pac.	1937	11,107	1,322,794	1,428,403	62,216	37,911	63.7	2,346,287	939,651	436	126	103	15.5
	1936	11,121	1,314,996	1,398,010	57,664	36,381	62.5	2,292,751	912,388	457	96	132	19.3
Chi., St. P., Minneap. & Om.	1937	1,636	223,004	230,301	10,643	5,259	67.1	318,879	130,878	88	38	16	11.3
	1936	1,637	210,257	218,841	9,365	4,756	67.8	283,338	116,226	87	31	30	20.3
Great Northern	1937	7,997	819,422	816,104	31,149	30,823	61.6	2,151,452	1,015,867	378	37	148	26.3
	1936	8,155	742,751	739,850	26,306	26,551	62.4	1,783,521	816,625	343	52	189	32.4
Minneap., St. P. & S. St. M.	1937	4,278	393,969	400,676	4,277	9,598	69.4	556,601	240,904	120	..	27	18.4
	1936	4,273	376,423	383,475	3,649	8,864	66.6	522,121	219,615	125	..	30	19.4
Northern Pacific	1937	6,429	689,011	750,615	37,700	22,884	67.6	1,380,701	589,802	382	6	84	17.8
	1936	6,429	622,116	684,112	47,054	19,287	65.6	1,148,194	469,345	338	24	79	17.9
Central Western Region:													
Alton	1937	912	216,292	229,710	2,087	4,879	59.8	316,684	112,041	70	..	25	26.3
	1936	928	197,533	204,230	1,499	4,484	63.2	283,391	101,858	69	3	25	25.8
Atch., Top. & S. Fe. (incl. G.C. & S.F. & P. & S.F.)	1937	13,562	2,017,933	2,187,060	97,167	58,520	62.0	3,648,053	1,199,272	620	16	308	32.6
	1936	13,235	1,711,186	1,851,401	82,522	47,687	63.2	2,937,861	985,192	529	100	346	35.5
Chicago, Burl. & Quincy	1937	8,934	1,206,218	1,250,977	42,397	34,582	66.8	1,973,966	840,791	444	4	92	17.0
	1936	8,969	1,210,042	1,265,887	47,343	32,221	64.7	1,868,666	773,828	427	4	107	19.9
Chi., Rock I. & Pac. (incl. Chi., Rock I. & Gulf)	1937	8,113	1,222,429	1,239,720	9,496	28,526	62.4	1,736,388	639,371	394	19	221	34.9
	1936	8,176	1,186,728	1,206,830	6,004	25,386	60.5	1,582,399	567,279	403	2	312	43.5
Denv. & Rio Gr. Western	1937	2,576	326,434	358,754	37,874	8,404	69.8	512,376	224,196	165	8	28	13.9
	1936	2,584	324,969	355,436	34,472	8,466	66.4	515,756	200,301	166	9	31	15.0
Southern Pac.—Pac. Lines	1937	8,605	1,672,721	1,844,979	238,715	53,657	61.8	3,399,816	1,137,793	514	91	169	21.8
	1936	8,596	1,407,824	1,535,640	184,589	45,669	60.4	2,925,074	926,062	372	168	238	30.6
Union Pacific	1937	9,911	1,770,147	1,836,522	104,303	59,452	68.5	3,471,348	1,277,216	570	103	202	23.1
	1936	9,829	1,610,629	1,673,053	104,141	53,764	66.6	3,179,589	1,127,281	565	69	228	26.5
Southwestern Region:													
Mo.-Kansas-Texas Lines	1937	3,282	411,435	417,801	5,941	11,337	59.9	701,160	242,291	99	25	80	39.2
	1936	3,282	378,237	383,955	6,177	10,159	60.1	630,380	218,132	100	24	79	38.9
Missouri Pacific	1937	7,143	1,209,406	1,242,471	26,749	35,327	65.5	2,125,012	803,373	316	134	88	16.4
	1936	7,201	1,157,401	1,197,324	26,591	33,413	62.9	2,090,657	773,365	316	97	128	23.7
St. Louis-San Francisco	1937	4,888	789,097	797,484	11,237	16,389	62.6	1,012,914	399,665	279	56	75	18.3
	1936	4,888	718,040	724,059	10,742	15,054	62.2	935,099	359,760	269	91	63	14.9
St. Louis Southw. Lines	1937	1,733	369,291	372,022	5,028	9,259	60.2	564,081	187,801	95	7	20	16.4
	1936	1,768	270,205	273,576	3,517	7,806	60.8	470,998	154,909	101	11	8	6.7
Texas & New Orleans	1937	4,420	660,053	660,273	9,440	16,075	61.8	1,020,538	369,642	223	36	27	9.4
	1936	4,416	561,439	561,563	6,413	13,317	62.6	825,200	289,744	193	44	59	19.9
Texas & Pacific	1937	1,944	342,917	342,917	1,692	9,841	60.3	625,768	211,122	72	25	105	52.0
	1936	1,945	299,252	299,252	1,584	9,112	60.9	563,355	184,244	65	51	101	46.5

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.

1937, Compared with May, 1936, for Roads with Annual Operating Revenues Above $25,000,000

Region, road, and year	Number of freight cars on line: Home	Foreign	Total	Per cent unserviceable	Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders	Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles, including locomotives and tenders	Locomotive-miles per locomotive-day
New England Region:													
Boston & Albany.....1937	2,296	4,241	6,537	24.1	21,790	1,293	454	19.2	326	25.0	5,677	160	60.3
1936	2,335	4,371	6,706	23.1	22,361	1,354	468	18.4	285	23.1	5,254	154	54.2
Boston & Maine.....1937	7,311	8,746	16,057	13.2	28,151	2,034	771	20.2	449	30.8	3,664	97	45.5
1936	8,322	7,779	16,101	15.7	26,010	1,947	731	20.5	404	28.5	3,327	102	41.9
N. Y., New Hav. & Hartf..1937	9,383	12,536	21,919	13.4	27,200	1,943	730	19.8	378	27.4	4,212	103	64.9
1936	13,081	11,084	24,165	17.5	27,108	1,924	717	20.7	323	23.9	3,961	102	56.4
Great Lakes Region:													
Delaware & Hudson.....1937	7,495	3,868	11,363	6.0	31,639	2,246	1,076	29.0	709	36.4	10,023	104	48.0
1936	8,950	3,464	12,414	6.5	30,694	2,180	1,030	29.6	628	33.0	9,288	105	43.3
Del., Lack. & Western.....1937	13,130	7,191	20,321	11.9	34,103	2,082	847	23.8	527	32.5	11,060	129	78.7
1936	13,755	5,944	19,699	16.7	32,234	1,966	768	23.1	465	30.5	9,429	127	69.4
Erie (incl. Chi. & Erie)....1937	15,700	16,972	32,672	4.8	43,824	2,628	1,022	23.0	701	45.4	10,389	94	61.3
1936	16,595	17,850	34,445	4.4	42,833	2,606	980	22.5	610	41.5	9,310	95	57.5
Grand Trunk Western.....1937	4,499	7,173	11,672	16.1	33,613	1,718	606	20.6	453	33.6	5,362	90	75.6
1936	4,251	7,698	11,949	15.8	32,283	1,661	573	20.8	425	32.6	5,000	95	73.1
Lehigh Valley 1937	10,408	10,234	20,642	8.5	41,608	2,371	1,015	26.4	564	32.1	9,450	111	58.2
1936	12,185	9,075	21,260	7.7	37,339	2,117	881	25.8	521	30.8	8,582	117	56.0
New York Central.....1937	90,729	70,858	161,587	14.6	39,092	2,267	910	25.9	524	33.2	7,933	97	80.1
1936	107,101	64,945	172,046	19.9	37,343	2,206	878	25.6	433	28.4	7,025	100	70.9
N. Y., Chicago & St. Louis.1937	5,835	8,447	14,282	4.1	38,794	2,092	799	22.3	957	64.3	8,014	88	94.9
1936	6,509	7,843	14,352	4.0	38,364	2,089	758	21.3	819	59.1	6,931	87	87.4
Pere Marquette 1937	7,991	7,206	15,197	3.6	28,506	1,705	628	22.9	514	37.0	3,783	89	95.6
1936	8,929	6,382	15,311	4.9	28,249	1,665	604	22.7	473	33.8	3,560	89	89.4
Pittsburgh & Lake Erie....1937	8,275	11,761	20,036	29.2	45,768	3,168	1,791	47.9	287	9.8	24,101	88	49.1
1936	13,896	11,550	25,446	38.8	48,688	3,416	1,953	47.9	197	6.6	21,259	91	42.5
Wabash 1937	10,668	10,346	21,014	6.6	37,609	1,801	627	19.8	587	44.6	4,962	104	72.2
1936	10,696	9,315	20,011	3.3	37,211	1,843	621	19.8	578	45.8	4,667	101	64.4
Central Eastern Region:													
Baltimore & Ohio.....1937	56,623	32,028	88,651	11.8	29,136	2,191	1,013	31.3	589	29.3	8,371	133	60.7
1936	68,282	27,293	95,575	16.0	28,752	2,146	965	30.3	483	25.3	7,266	134	53.7
Central of New Jersey.....1937	9,549	9,998	19,547	26.5	27,911	2,379	1,121	32.6	295	15.1	9,005	128	73.6
1936	11,120	9,675	20,795	32.7	27,453	2,335	1,086	31.1	230	12.0	7,254	140	57.0
Chicago & Eastern Illinois..1937	2,980	3,701	6,681	3.4	29,387	1,569	625	23.4	555	35.1	3,988	120	62.6
1936	3,481	3,213	6,694	11.2	27,292	1,442	590	24.0	491	30.2	3,458	127	54.1
Elgin, Joliet & Eastern....1937	8,276	6,439	14,715	6.4	18,162	2,099	1,050	38.0	260	11.1	8,682	111	67.3
1936	7,834	5,372	13,206	5.2	17,427	1,987	992	36.6	226	9.8	6,773	112	49.9
Long Island 1937	382	3,426	3,808	3.4	6,087	823	332	31.8	83	5.1	843	304	46.4
1936	635	3,190	3,825	2.5	5,928	771	298	29.9	69	4.5	704	296	42.2
Pennsylvania System 1937	176,113	71,392	247,505	17.3	36,839	2,469	1,113	30.7	488	25.3	11,981	112	66.6
1936	200,323	63,125	263,448	17.0	34,807	2,432	1,059	29.4	376	20.7	9,932	113	56.5
Reading 1937	20,312	13,890	34,202	6.9	26,398	2,074	984	33.3	402	19.3	9,635	129	57.1
1936	25,482	10,849	36,331	11.2	25,233	2,068	974	33.5	358	17.5	9,026	139	53.7
Pocahontas Region:													
Chesapeake & Ohio.....1937	43,401	14,796	58,197	1.1	55,857	3,861	2,085	44.1	985	38.9	19,256	71	61.7
1936	41,881	14,175	56,056	1.8	57,326	3,993	2,152	45.3	1,038	41.1	19,159	70	62.0
Norfolk & Western.....1937	32,343	5,429	37,772	2.4	52,930	3,499	1,851	43.2	1,056	41.1	18,217	96	73.2
1936	31,311	5,181	36,492	3.2	50,895	3,448	1,817	43.7	1,038	40.3	17,061	96	65.7
Southern Region:													
Atlantic Coast Line.....1937	16,628	11,094	27,722	19.1	21,882	1,245	435	19.2	329	27.6	1,781	104	61.2
1936	20,751	7,939	28,690	23.9	20,374	1,149	392	18.6	268	23.2	1,513	113	53.4
Central of Georgia.....1937	3,279	4,432	7,711	2.8	22,741	1,231	488	21.6	551	35.0	2,267	123	79.6
1936	3,622	3,392	7,014	6.0	22,137	1,188	455	20.8	516	34.1	1,920	119	70.9
Illinois Central (incl. Y. 1937	29,493	20,778	50,271	15.3	26,419	1,510	593	23.9	619	40.2	4,778	126	65.9
& M. V.).....1936	37,276	19,241	56,517	29.0	25,990	1,488	580	24.1	521	34.2	4,527	123	65.7
Louisville & Nashville.....1937	31,719	11,917	43,636	13.2	25,886	1,667	758	31.8	716	38.0	6,464	120	87.8
1936	37,677	11,684	49,361	23.4	26,722	1,694	771	32.0	587	31.3	5,691	121	77.9
Seaboard Air Line.....1937	9,759	7,310	17,069	1.7	25,296	1,526	562	21.2	560	39.7	2,250	115	66.0
1936	9,989	4,506	14,495	2.9	24,923	1,487	515	19.8	534	41.6	1,878	112	55.0
Southern 1937	20,688	21,427	42,115	11.1	22,113	1,277	515	22.4	512	33.3	3,351	142	60.6
1936	23,255	17,233	40,488	16.2	21,515	1,268	485	20.7	461	32.7	2,848	142	52.8
Northwestern Region:													
Chicago & North Western..1937	35,021	20,873	55,894	7.8	26,185	1,698	670	24.0	369	23.5	2,393	112	52.2
1936	37,118	19,630	56,748	9.2	25,406	1,596	606	23.0	348	23.2	2,351	116	53.0
Chicago Great Western....1937	2,023	3,977	6,000	2.7	32,265	1,757	649	22.2	932	65.7	3,951	123	101.3
1936	1,831	3,688	5,519	3.7	32,352	1,921	676	21.7	922	70.3	3,595	120	96.8
Chi., Milw., St. P. & Pac...1937	40,439	21,638	62,077	3.0	28,600	1,782	714	24.8	499	31.6	2,729	115	78.8
1936	43,902	20,158	64,060	3.1	27,730	1,750	697	25.1	470	30.0	2,647	115	75.1
Chi., St. P., Minneap. & Om.1937	4,236	4,797	9,033	10.2	19,512	1,442	592	24.9	476	28.5	2,581	101	59.4
1936	3,061	5,500	8,561	10.5	17,636	1,352	555	24.4	446	26.9	2,290	110	54.6
Great Northern 1937	36,532	10,670	47,202	8.8	39,968	2,642	1,248	33.0	686	33.8	4,098	96	53.1
1936	36,967	10,171	47,138	11.0	36,050	2,422	1,109	30.8	559	29.1	3,230	103	45.8
Minneap., St. P. & S. St. M.1937	11,328	4,837	16,165	4.2	22,325	1,418	614	25.1	482	27.7	1,817	95	89.1
1936	12,184	4,370	16,554	5.8	22,016	1,393	586	24.8	430	26.0	1,658	97	81.9
Northern Pacific 1937	25,960	6,198	32,158	8.9	32,125	2,011	859	25.8	590	33.9	2,959	139	59.0
1936	27,897	5,596	33,493	12.7	29,509	1,853	758	24.3	454	28.5	2,355	144	57.2
Central Western Region:													
Alton 1937	2,476	6,012	8,488	24.4	33,855	1,469	520	23.0	424	30.9	3,965	121	81.6
1936	2,396	6,051	8,447	24.8	33,984	1,439	517	22.7	398	27.7	3,540	115	71.9
Atch., Top. & S. Fe. (incl. 1937	63,203	16,045	79,248	9.3	34,701	1,813	596	20.5	489	38.5	2,853	115	82.3
G.C. & S.F. & P. & S.F.).1936	67,741	13,066	80,807	11.4	32,442	1,720	577	20.7	397	30.4	2,401	118	67.1
Chicago, Burl. & Quincy...1937	25,595	17,563	43,158	6.2	28,673	1,643	700	24.3	636	39.1	3,036	116	82.2
1936	27,392	14,187	41,579	9.4	27,582	1,551	642	24.0	606	39.0	2,783	117	83.1
Chi., Rock I. & Pac. (incl. 1937	20,465	14,922	35,387	7.0	26,160	1,423	524	22.4	594	42.5	2,542	127	66.7
Chi., Rock I. & Gulf)...1936	24,852	12,360	37,212	10.9	24,004	1,337	479	22.3	494	36.6	2,238	131	57.8
Denv. & Rio Gr. Western..1937	11,573	3,380	14,953	5.8	26,184	1,579	691	26.7	481	25.9	2,807	153	67.0
1936	12,889	3,002	15,891	7.2	26,527	1,592	618	23.7	407	25.9	2,500	156	64.9
Southern Pac.—Pac. Lines.1937	32,027	33,691	65,718	6.4	33,451	2,048	685	21.2	574	43.8	4,265	102	91.2
1936	32,884	26,876	59,760	8.5	34,056	2,095	663	20.3	513	41.8	3,475	103	74.9
Union Pacific 1937	38,621	17,912	56,533	11.3	42,143	1,973	726	21.5	728	49.5	4,157	117	74.9
1936	41,284	15,863	57,147	14.4	41,860	1,986	704	21.0	634	45.4	3,700	116	68.4
Southwestern Region:													
Mo.-Kansas-Texas Lines ...1937	4,044	6,056	10,100	2.2	32,306	1,705	589	21.4	833	65.1	2,382	84	71.8
1936	4,739	5,126	9,865	6.5	31,812	1,668	577	21.5	704	54.5	2,144	83	66.2
Missouri Pacific 1937	14,942	24,141	39,083	2.2	32,480	1,767	668	22.7	684	45.9	3,628	114	81.5
1936	16,497	19,076	35,573	3.7	33,340	1,813	671	23.1	710	48.8	3,464	111	78.0
St. Louis-San Francisco....1937	15,688	7,747	23,435	7.0	25,813	1,287	508	24.4	552	36.1	2,637	127	66.8
1936	18,711	6,641	25,352	6.5	25,715	1,306	503	23.9	458	30.8	2,374	125	58.6
St. Louis Southw. Lines....1937	2,260	4,258	6,518	3.7	30,223	1,532	510	20.3	951	77.9	3,495	90	103.8
1936	2,912	4,033	6,945	4.0	33,378	1,746	574	19.8	804	66.6	2,827	84	78.3
Texas & New Orleans.....1937	6,748	14,641	21,389	6.5	27,799	1,559	565	23.0	562	39.6	2,698	85	81.2
1936	7,465	11,964	19,429	7.7	26,500	1,480	520	21.8	485	35.6	2,117	87	65.8
Texas & Pacific.....1937	2,291	6,291	8,582	2.0	32,677	1,829	617	21.5	777	60.0	3,504	86	59.1
1936	2,879	4,783	7,662	3.6	31,900	1,888	618	20.2	757	61.5	3,055	85	48.5